

Facilitating Infrastructure Development in India

ADB's experience and best practices in project implementation



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Message

It gives me immense pleasure to note that the Asian Development Bank is commemorating 25 years of operations in India. Government of India is proud to have had ADB as an important partner in its development efforts, particularly in the field of infrastructure. I am pleased that on this special occasion, ADB is publishing a report on facilitating Infrastructure Development in India, which focuses on its experiences and presents best practices in project implementation.

Over the past decade, the Government of India has focused on achieving inclusive and sustainable growth by undertaking large infrastructure development programs cutting across sectors, creating an enabling environment for attracting greater private sector participation through regulatory reforms, improving the delivery of public services, and strengthening e-governance and skill development. ADB has been prompt in responding to the Government's evolving development priorities by expanding its operations to weak capacity states and difficult regions and making a foray into several new and emerging areas, including incorporating public-private partnership component in projects, exploring the scope for various non-sovereign and credit enhancement lending modalities, and mainstreaming concerns of climate change adaptation and mitigation, gender, governance, and capacity building into its operations.

ADB as well as Indian executing agencies have considerable knowledge on managing the implementation of infrastructure projects after having worked together on about 140 projects in the country over the past 25 years. This publication seeks to disseminate some of their knowledge.

I am certain this publication will provide valuable lessons for functionaries engaged in the development of infrastructure in the country.


(V. Rajamony)


Foreword

Over the last 25 years, Asian Development Bank (ADB), Government of India and the executing agencies have been working in close cooperation to achieve development goals. Since it began operations in India in 1986, ADB has been supporting projects in the energy, transport, urban, finance, and agriculture and natural resources sectors across 22 states including Assam, Mizoram, Nagaland, Meghalaya, Sikkim, Rajasthan, Karnataka, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Himachal Pradesh and Odisha.

While there have been several accomplishments, ADB has also encountered a number of challenges in project implementation. The issues have been addressed and resolved over time through various interventions conceived under the joint portfolio reviews between ADB, Government of India, and the executing agencies. During this process, executing agencies share their best practices in project implementation and learn from one another's experiences. The Tripartite Portfolio Review Meetings (TPRM) have come to be widely recognized as a successful forum under ADB's portfolio management initiatives. This publication captures ADB's experience in project implementation and the best practices identified during various TPRMs.

The first chapter outlines the context in which these practices needed to be developed. It was largely on account of the capacity issues that public agencies were required to cope with over time. The second chapter provides details on the portfolio review mechanism and evolution of the TPRMs, and how these have matured to become a revered forum for cross learning. The TPRMs have now expanded towards result-focused project management. The third chapter deals with the key interventions and best practices that have emerged over the various meetings and how executing agencies across sectors have proactively utilized these learnings. The fourth chapter captures the impact of these best practices and key portfolio interventions on six projects selected across four sectors – energy, transport, urban, and agriculture and natural resources. ADB believes there is considerable scope to further improve project implementation performance and revisiting the best practices provides valuable lessons to the continuously expanding ADB portfolio in India. The last chapter charts out with the way forward and discusses how these best practices could be further augmented to extend their benefits and improve project implementation.

The publication documents how ADB and the Government of India have come together to enhance the project implementation performance of executing agencies through cross learning and sharing of best practices. I am sure it will serve as a valuable tool for enhancing the capacity of project personnel and improving the timely delivery of projects in general.



Hun Kim
Country Director
India Resident Mission

Abbreviations

ADB	Asian Development Bank
ATC	Aggregate Technical and Commercial Losses
BME	Benefit Monitoring and Evaluation
BOS	Business Opportunity Seminar
BRTS	Bus Rapid Transit System
BWSP	Bisalpur Water Supply Project (Jaipur, Rajasthan)
CAG	Comptroller and Auditor General
CAPP	Community Awareness & Participation Programme
CDTA	Capacity Development Technical Assistance
CEAI	Consulting Engineers Association of India
CGRDA	Chhattisgarh Rural Roads Development Authority
CIDP	Chhattisgarh Irrigation Development Project
CMP	Comprehensive Mobility Plan
COP	Communities Of Practice
COSO	Central Operations Services Office
CRM	Contractors' Review Meeting
DEA	Department of Economic Affairs
DOF	Department of Finance (State Government)
DPR	Detailed Project Report
DSC	Design & Supervision Consultants
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EXIM	Export & Import
FIDIC	Fédération Internationale des Ingénieurs-Conseils/International Federation of Consulting Engineers
FIEO	Federation of Import and Export Organizations
FRBM	Fiscal Responsibility & Budgetary Management
GHG	Green House Gases

GIS	Geographical Information Systems
GOK	Government of Karnataka (State)
GPS	Global Positioning Systems
HVDS	High Voltage Distribution System
IEC	Information, Education & Communication
IIFCL	India Infrastructure Finance Company Limited
IIP	Intensive Intervention Programme
IIRM	Indian Institute of Rural Management
IMMT	Irrigation Management & Maintenance Transfer
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KEIP	Kolkata Environmental Improvement Project
KMC	Kolkata Municipal Corporation
KUDCEMP	Karnataka Urban Development & Coastal Environment Management Programme
KUIDFC	Karnataka Urban Infrastructure Development Finance Corporation
KUIDP	Karnataka Urban Infrastructure Development Project
LAF	Land Acquisition Framework
LAP	Land Acquisition Plan
MAKE	Most Admired Knowledge Enterprise
MAP	Management Action Plan
MFF	Multi-tranche Funding Facility
MIS	Management Information System
MLD	Million Liters per Day
MOEF	Ministry of Environment & Forests (Government of India)
MPPSDP	Madhya Pradesh Power Sector Development Project
MPRRDA	Madhya Pradesh Rural Roads Development Authority
MPSEB	Madhya Pradesh State Electricity Board
MSW	Municipal Solid Waste
MVA	Million Volt Amperes
NGO	Non Governmental Organizations
NHAI	National Highway Authority of India
NKUSDIP	North Karnataka Urban Sector Development Investment Program
NOC	No Objection Certificate
NRRDA	National Rural Roads Development Authority
OBC	Other Backward Classes
ODA	Overseas Development Assistance
PAU	Project Administration Unit
PIC	Project Implementation Consultants
PIM	Participatory Irrigation Management
PIP	Project Implementation Plan
PIU	Project Implementation Unit
PMC	Project Management Consultants

PMGSY	Pradhan Mantri Gram Sadak Yojana
PMO	Project Management Office
PMS	Portfolio Management System
PMU	Project Management Unit
PPP	Public Private Partnership
PPR	Project Performance Report
PPTA	Project Preparatory Technical Assistance
PSP	Private Sector Participation
PURA	Provision of Urban Amenities in Rural Area
PWD	Public Works Department
RUIDP	Rajasthan Urban Infrastructure Development Project
RUSDIP	Rajasthan Urban Services Development Investment Project
SCADA	Supervisory Control And Data Acquisition
SDU	Social Development Unit
SEZ	Special Economic Zone
SGIA	Second Generation Imprest Account
SPV	Special Purpose Vehicle
SRF	Sector Results Framework
SWM	Solid Waste Management
TASF	Technical Assistance Special Fund
TOR	Terms of Reference
TPRM	Tripartite Portfolio Review Meeting
ULB	Urban Local Body
VAT	Value Added Tax
VGF	Viability Gap Funding
VRS	Voluntary Retirement Scheme
WRD	Water Resource Department
WTP	Water Treatment Plant
WUA	Water Users Association

Overview



A Brief about this Publication

Over the last 25 years, the Asian Development Bank (ADB) has been working in partnership with Government of India, state governments, and executing agencies to facilitate infrastructure development to meet the nation's economic and human development goals. Since it began operations in India in 1986, ADB has supported 159 projects across eight sectors, with an estimated cost of US\$24 billion¹ (Annex 1). These projects are spread across over 20 states including Assam, Mizoram, Nagaland, Meghalaya, Sikkim, Rajasthan, Karnataka, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Himachal Pradesh, and Odisha.

ADB has encountered a number of implementation issues in these projects. Many issues are linked to the limited capacities of executing agencies, including systemic issues such as inadequate skills, lack of proper institutional mechanisms, non-adoption of internationally accepted practices in planning, implementing, and managing projects, while others are related to shortfalls in the monitoring and review mechanism, and operation and maintenance strategies for sustainability of assets over their lifecycle.

These issues have been addressed and resolved over time through various interventions and practices conceived through joint portfolio reviews and consultations between ADB, Government of India, and executing agencies. Applying these interventions and practices has significantly improved these agencies' performance and made the assets sustainable and economically viable in the long term. This publication presents a compendium of such interventions and best practices to provide functionalities in infrastructure development

¹ This includes agriculture and natural resources, energy, finance, health and social protection, industry and trade, public sector management, transport, information and communication technologies, water supply and other municipal infrastructure and services, and is accounted for up to 31 December 2010.

and/or service provision with information and guidance based on key lessons in implementation of infrastructure projects.

Capacity Issues in the Development of Sustainable Infrastructure

Successive Five Year Plans of Government of India have emphasized the need to develop robust infrastructure for sustained human development. In the 12th Plan (2012–17) alone targeted investment in infrastructure development is about US\$1 trillion, with around 56 per cent being raised from the private sector. However, the primary responsibility for providing public services shall remain with public sector entities, including the government itself.

Changing developmental needs due to liberalization and a growing population, with increasing regional and rural-urban disparities, have resulted in increasing demand for high quality, resilient infrastructure. Government bodies whose capacities have not been augmented over the last few decades are unable to take up large scale infrastructure projects, even if funds are available. Due to continued lack of capacity public investment in infrastructure development faces significant time and cost overruns.

According to a Department of Economics, University of Delhi study² in 2009, 40 per cent of a sample of 895 projects across 17 infrastructure sectors in India exhibited cost

overruns and over 82 per cent exhibited time overruns. The primary causes included:

- Inappropriate or inadequate formulation of projects,
- Lack of viable and contingent project implementation plans,
- Lack of knowledge/ skill-sets for project administration, viz., procurement, costing, financial management, project management, reporting etc.
- Impasses requiring renegotiation of project fundamentals due to insufficient coordination between concerned stakeholders or insufficient sharing of information.

In externally aided projects, time and cost overruns, apart from creating capital adequacy issues, also create burdens such as commitment charges and interest on loans that reflect adversely on the effectiveness of development assistance.

ADB's Experience in Project Implementation

ADB has successfully resolved numerous project implementation issues through deliberations and consultations with Government of India and the concerned executing agencies. A number of issues have been identified in terms of adverse effects of executing agencies using non-optimal processes on project implementation. In response, a sizeable component of ADB's operations in India has included working with executing agencies for "re-engineering

² Singh, Ram, "Delays and Cost Overruns in Infrastructure Projects: An Enquiry into Extents, Causes and Remedies", Department of Economics, University of Delhi, 2009. The data was sourced from various compilations of the Ministry of Statistics & Program Implementation, Government of India, and uses National Sample Survey Data from the 61st round (2004 – 2005).

Refer: <http://www.econdse.org/faculty/ram/Working%20Paper%20Nov%2030,%202009.pdf>



Construction works in Odisha Integrated Irrigation Project

processes” which enhance the capacity of executing agencies for efficient project implementation. ADB’s efforts have also focused on augmenting the abilities of executing agencies in project planning and maintaining assets over their life cycle. Such interventions may seem ordinary, but ADB’s experience shows that these have prevented and contained delays in implementation.

Executing agencies are often not ready for project implementation when the loan is approved. Thus, commencement of project implementation³ can be delayed up to two or more years due to various reasons, such as:

- Project approval by the government or a competent authority such as EFC, CCEA or FRBM clearance;
- Agreement on the fundamental purpose or intent of a project between the state

government, executing agencies and municipal bodies;

- Establishing and staffing project management units (PMU) and project implementing units (PIUs);
- Timely preparation of quality Detailed Project Reports (DPR), firming-up of cost estimates and acceptance of DPRs by the competent authorities;
- Preparation of “standard bidding documents (SBD)” and “request for proposal (RFP)” for procurement of goods, works and consulting services and delay in tendering and evaluation of bids; and
- Statutory matters such as land and right-of-way acquisition, resettlement, obtaining forest and environmental clearances, removing encumbrances and securing no-objection from affected parties;

³ “Commencement” refers to the point in time when the first contract is awarded by the agency executing the project to the contractor/ service provider.

Other underlying issues also result in delays and cost overruns in projects. These are elaborated below.

CAPACITY CONSTRAINTS AND UNSTRUCTURED NATURE OF INDIAN CONSTRUCTION INDUSTRY

The size of the organized construction industry in India is still small⁴ and many contractors are unable to deliver civil works on a scale in keeping with the massive ongoing infrastructure development in the country across various sectors. The major factors that limit the construction industry include capacity constraints in delivery potential and performance, shortage of skilled and unskilled manpower, use of obsolete technologies and construction equipments, inadequate availability of quality construction materials, etc. From the side of the employer (i.e., the executing agency), flawed practices in bid design, viz., inappropriate qualification and evaluation criteria, unequal risk allocation, low weightage to quality aspects and indecisiveness on project parameters etc. impair effective functioning of contractors.

INADEQUATE MONITORING AND EVALUATION MECHANISMS

Putting effective monitoring and evaluation (M&E) systems in place is an important factor affecting project implementation. This should include modern management information systems (MIS) for planning, implementing, and managing projects; and rigorous impact evaluation of projects, especially when interventions are innovative and/or uncertainty exists about the development impacts. Impact evaluation

could serve as a key learning tool for all development partners.

SHORTAGE OF SKILLS

ADB's experience highlights the need for a careful strategy on skills development and capacity building. The issue of skills development applies to both executing agencies and construction and consulting industries. Accordingly, solutions on the skills issue are needed at various levels. Capacity development in project formulation and execution needs to be institutionalized within and across executing agencies. Modalities such as the national design and planning institutes in People's Republic of China, which act as project management/consultants in projects across different regions, could be explored.

SHARING OF BEST PRACTICES AND INNOVATIVE ELEMENTS

Given the scarce resources and limited skills of the executing agencies, it is important to disseminate the lessons learnt and share the best practices and innovations gathered from any given project to make them accessible to other executing agencies for dealing with similar issues and bringing efficiency in project implementation.

Portfolio Management

A robust monitoring and review mechanism enables project sponsors to demand consistent performance from project

⁴ While the construction industry contributes to approximately 6% of the country's GDP, a large section of the industry lies within the unorganized or semi-organized sector, comprising of sub-contractors.

authorities and avoidance of bottlenecks that result in delayed project implementation. Project authorities are encouraged to establish dedicated systems for pre-emption and resolution of operational bottlenecks, leading to on-time and within-budget completion of projects.

While the tasks pertaining to monitoring and review are generally described as 'reactive', i.e., only responding to external events that happen within the project, ADB also ensures timely dissemination of learning from monitoring and reviews among executing agencies. Thus, 'curative' actions for one project can translate into 'preventive' actions for the others. This monitoring and review, along with transfer of knowledge between various project authorities comprises the ambit of portfolio management. The tasks associated with portfolio management in ADB lie with the Portfolio Management Unit.

Portfolio management has been a key component of ADB's operations in India. Until 2005, portfolio management activities comprised generic monitoring and review,

and certain pre-specified processes linked to project administration. While this approach sufficed for meeting monitoring and reporting requirements of project progress, it was not providing a holistic picture that effectively conveyed how a particular sector, or ADB's overall assistance to the government fared.

Given the need for increased involvement in meeting development goals, ADB developed a new Portfolio Management Strategy (PMS) in 2005, jointly with the Department of Economic Affairs (DEA) and in consultation with executing agencies to enhance its portfolio performance by monitoring project implementation progress, promoting cross learning by sharing best practices and playing an oversight role in overall loan administration. This is widely regarded as a 'turning point' in enhancing overall portfolio performance.

A key feature of the PMS is the periodic Tripartite Portfolio Review Meetings (TPRM), between ADB, Government of India (through DEA) and the executing



TPRM, April 2011, New Delhi

agencies to review project performance; identify common and specific problems in project implementation; formulate time-bound action plans to address these problems and reach agreements on improving portfolio performance.

In a typical TPRM, participants review and discuss project implementation performance across all sectors and states, identify generic and project-specific implementation issues, agree on an approach to resolve these issues in the form of time-bound action plans and promote cross-learning and sharing best practices in project implementation. Over time, the focus of TPRM deliberations has expanded from input-based monitoring to a result-based approach in the form of output and outcomes. The gradual evolution of portfolio review strategies has been discussed in Chapter 2.

The deliberations during the TPRMs resulted in the development of certain processes and interventions that are discussed in this publication. These practices and interventions may be grouped into four thematic performance areas:

- i. Project preparedness and readiness;
- ii. Project administration and monitoring;
- iii. Implementation of reform agenda; and
- iv. Knowledge management and sharing of best practices.

Application of these practices and interventions resulted in several achievements, including:

- Strengthened portfolio performance during 2005–2010 through contract awards, disbursements and disbursement ratio;
- Reduced time lag between signing of loan and award of contracts;



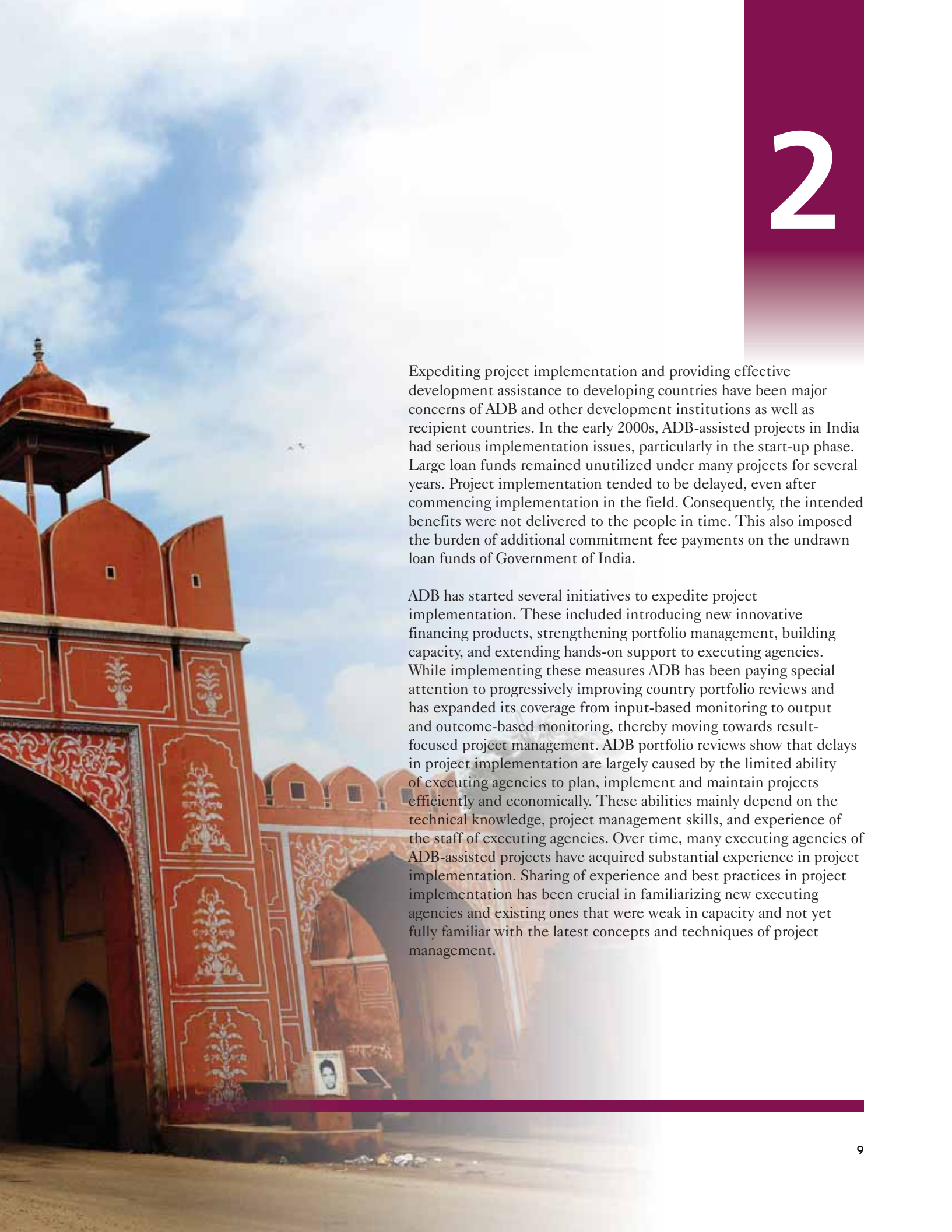
Farmers getting power under Madhya Pradesh Power Sector Development Project

- Structured learning programs for executing agencies for both ADB project administration procedures and project-level implementation;
- Cross-learning of best practices in project implementation and innovative project elements facilitated among executing agencies;
- Application of result-focused project management – focus shifting from outputs (number and nature of assets) to outcomes (developmental results, oriented towards project beneficiaries)
- Improved system for assessing short-term progress of projects and allowing for early detection of problem areas;
- A streamlined mechanism to resolve field level issues warranting discussions between multiple agencies or lingering (long-standing) issues;
- Specialized agencies, viz., Special Purpose Vehicles (SPVs) to carry forward the provision of services using the infrastructure created on a self-sustaining basis;
- A forum to discuss business opportunities within ADB financed projects, attracting good quality contractors and consultants for promoting competition and achieving economical bids;
- Improved compliance with the government's statutory environmental requirements.

These achievements are elaborated in Chapter 3. Chapter 4 provides six case studies that cover urban development, transport, energy, and agriculture and natural resources sectors. Chapter 5 provides conclusions and the way forward.

Evolution of Portfolio Reviews





Expediting project implementation and providing effective development assistance to developing countries have been major concerns of ADB and other development institutions as well as recipient countries. In the early 2000s, ADB-assisted projects in India had serious implementation issues, particularly in the start-up phase. Large loan funds remained unutilized under many projects for several years. Project implementation tended to be delayed, even after commencing implementation in the field. Consequently, the intended benefits were not delivered to the people in time. This also imposed the burden of additional commitment fee payments on the undrawn loan funds of Government of India.

ADB has started several initiatives to expedite project implementation. These included introducing new innovative financing products, strengthening portfolio management, building capacity, and extending hands-on support to executing agencies. While implementing these measures ADB has been paying special attention to progressively improving country portfolio reviews and has expanded its coverage from input-based monitoring to output and outcome-based monitoring, thereby moving towards result-focused project management. ADB portfolio reviews show that delays in project implementation are largely caused by the limited ability of executing agencies to plan, implement and maintain projects efficiently and economically. These abilities mainly depend on the technical knowledge, project management skills, and experience of the staff of executing agencies. Over time, many executing agencies of ADB-assisted projects have acquired substantial experience in project implementation. Sharing of experience and best practices in project implementation has been crucial in familiarizing new executing agencies and existing ones that were weak in capacity and not yet fully familiar with the latest concepts and techniques of project management.

Legacy Portfolio Reviews Prior to 2005

Prior to September 2005, portfolio reviews were conducted on a periodic basis in two sets of meetings: (i) bilateral review meetings (BRM) between ADB and executing agencies in which project implementation issues were discussed in detail; followed by (ii) tripartite portfolio reviews in which DEA, ADB, and executing agencies participated. While all the projects under implementation were discussed, projects were reviewed in a one-to-one manner and discussions were restricted to the respective executing agency for each project. The outputs of such portfolio reviews were primarily quantitative and the discussions were focused on inputs-based activities like contract awards and disbursements, physical progress, and implementation issues to ensure that the physical components of a project were fully executed, including any extension of the loan closing date as required. The systemic bottlenecks faced by the executing agencies were generally ‘taken cognizance of’. The onus of removing such bottlenecks was the responsibility of the executing agency on its own accord. Other issues such as knowledge sharing, project financial sustainability, operations and maintenance of completed project facilities, and compliance with reform agenda received little attention unless there was a major default by the executing agency.

AMENDING THE STRUCTURE OF PORTFOLIO REVIEWS

Portfolio reviews, prior to 2005, sufficed for meeting a certain protocol to make sure that the relevant stakeholders were consulted during deliberations. However, this model was not very effective in addressing key project implementation issues that were

repeatedly raised by the DEA, executing agencies and ADB, such as:

- Slow progress during the start-up phase of project implementation, even after loan signing, often led to substantial delay in project completion, which imposed the burden of additional commitment fee payments on the undisbursed loan funds on the government.
- Executing agencies showed lack of sustained interest, since the review process was overly structured and monotonous, focusing more on compliances and explanations than dialogue aimed at resolving implementation bottlenecks in a consultative manner.
- While executing agencies faced similar implementation issues in many cases, solutions/actions identified for resolving these were not adopted by all the other executing agencies, mainly because there was little or no cross-learning between them.
- Executing agencies across different sectors and states were not able to share knowledge and best practices during project implementation in the absence of a common platform.
- The approach to systemic reforms and adherence to safeguards was minimal and often resulted in implementation bottlenecks, leading to cost and time overruns.

While the above issues could not be addressed adequately, it was felt that the portfolio review meetings could be transformed into a collective knowledge forum for promoting cross-learning and sharing of best practices among EAs to strengthen project implementation performance. Accordingly, the model of portfolio review meeting was modified.

Modified Model of Portfolio Review

In September 2005, based on the concept of result-focused portfolio management and managing for development results (MFDR) the model of portfolio review was changed to a single and unified national level TPRM in consultation with the DEA, ADB, and the executing agencies. Under the modified model, TPRMs are attended by senior officials of DEA, ADB and the executing agencies, and are conducted two to three times a year outside Delhi to ensure full-time participation and dedication of all participants. Participants concentrate on project implementation issues, analyse causes of implementation delay, and identify solutions to address them with the responsible parties and preventive measures to accelerate project implementation. At the end of the discussion for each project, participants agree on a project-specific, time-bound action plan which the concerned executing agency implements. In each

TPRM, select executing agencies present their project case studies to share the best practices and lessons learnt during project implementation with other executing agencies. To resolve generic implementation issues that are common to many projects, a portfolio-wide action plan is discussed and agreed upon by the DEA, ADB, and the executing agencies. The details of all the TPRMs conducted since 2005 are in Annex 3 and the manual explaining the process of conducting TPRMs is in Annex 4.

TPRMs have improved portfolio performance through monitoring and analyzing implementation issues, and achieving development results, and have matured to an important knowledge forum for executing agencies to share best practices in project implementation and to promote cross-learning and team building. Over time, TPRM discussions have expanded to monitor development results that include achievement of outcomes, outputs, and issues related to the softer



Tripartite Portfolio Review Meeting, April 2011, New Delhi



Tripartite Portfolio Review Meeting, New Delhi, April 2011

side, i.e., the reform agenda, sustainability of project facilities and institutions, operations and maintenance of completed assets, and capacity building of EAs to take ownership for the life cycle of project assets.

During the TPRMs the management of the DEA and ADB have demonstrated full commitment to improve portfolio performance. Simultaneously, the DEA has also created the institution of the State Nodal Officer, usually a middle- to senior-level officer in the state's Planning or Finance Department. The nodal officers are responsible for facilitating smooth project implementation for all ADB-assisted projects in their states, and especially for resolving issues that involve interaction with central government agencies. Given the tremendous improvement in portfolio performance brought about by the TPRMs, ADB invited senior officials from

Government of Bangladesh and Nepal to observe the proceedings of TPRM held in April 2011 at Thiruvananthapuram. DEA has recently initiated similar TPRMs to improve the design and delivery of World Bank-assisted projects since the fourth quarter of 2009.

Key Outputs and Results of TPRM

Tripartite Portfolio Review Meetings typically generate the following outputs in a responsibility assignment matrix which describes the role of participants in achieving the deliverables for a project or portfolio in a timely manner (Box 2.1).

Box 2.1: Responsibility Assignment Matrix for TPRMs

Output	What it contains
Project-specific action plans	Project-specific action plans identify tasks to be carried out at the level of the project to resolve implementation issues and reform agenda, and allocate such tasks to the concerned executing agency, ADB, DEA or line ministry.
Portfolio-wide action plans	Portfolio-wide action plans identify generic issues that are common to many projects and affect overall portfolio performance. These include issues related to the capacity building needs of the executing agencies, procurement, disbursement, consultant selection, operation and maintenance of project facilities, and policy-level interventions, if any.
Follow-up of action plans	Project-specific action plans are periodically followed up by ADB review missions with the EAs, while portfolio-wide action plans are followed up by DEA and the Portfolio Management Unit at the India Resident Mission. Action-taken reports on project-specific and portfolio-wide action plans are presented in the subsequent TPRM.

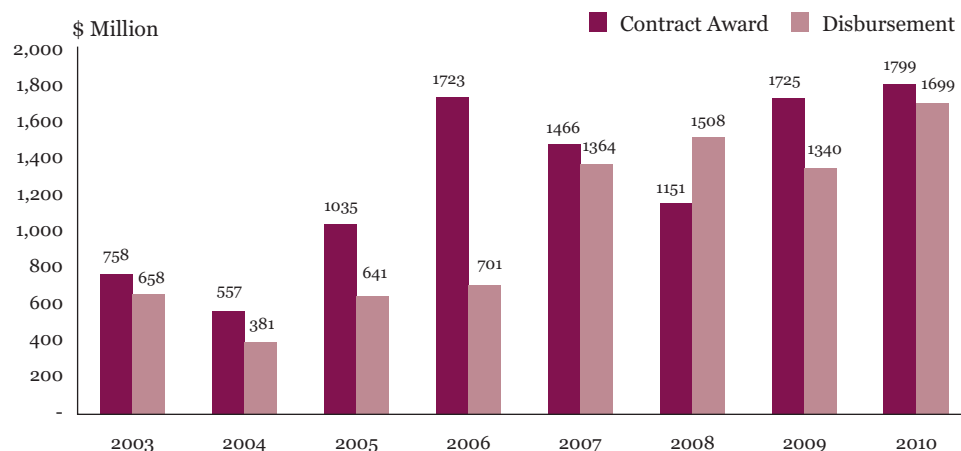
Impact of TPRMs on Portfolio Performance

KEY PERFORMANCE AREAS OF QUANTITATIVE IMPROVEMENT

The effectiveness of TPRM has translated into significant improvement in India's portfolio performance since 2005, as measured by the contract awards, disbursement, disbursement ratio, and

improved project quality at entry by achieving specific milestones in the project readiness checklist prior to loan negotiations. The project-related contract awards and disbursements are directly correlated to physical efforts, in contrast with program-related contract awards and disbursements which are driven by policy implementation. During 2000–05, contract awards under project loans stagnated in the range of US\$300–830 million and disbursements in the range of US\$300–450 million (Figure 2.1).

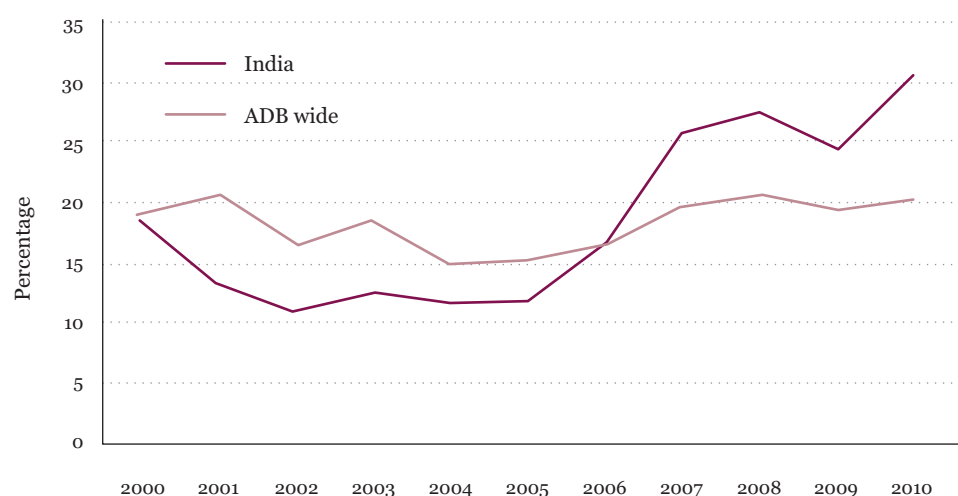
Figure 2.1: Impact of TPRMs on India's Portfolio Performance



As a consequence of the revised format of TPRM in September 2005 and several other measures to expedite project implementation, the annual contract awards under project loans reached US\$1.5 billion in 2010 and project disbursements reached an all-time record high of US\$1,379 million in 2010. Apart from

contract awards and disbursements, India's disbursement ratio¹ which is an important indicator of portfolio performance has shown significant improvement since 2005 and has been higher than ADB-wide average ever since (Figure 2.2).

Figure 2.2: Disbursement Ratio (2000–2010)



KEY PERFORMANCE AREAS OF QUALITATIVE IMPROVEMENT

A key aspect of discussions within the new format of TPRM is formulating action plans to improve portfolio performance by accelerating project implementation. ADB has, over the last six years and 18 such TPRMs, identified and expedited a number of actions that have led to improved portfolio performance identified as the key activity in the core operational aspect of ADB. The new format of TPRM has provided an opportunity for these issues to be discussed by a wider range of stakeholders, and accordingly, has necessitated the development of tools and

processes that have since been internalized by ADB, DEA and the participating executing agencies for better monitoring of the projects and achieving the desired development results. These interventions have matured over time, with each successive TPRM, as they are applied to different projects. From the perspective of portfolio management, these interventions can be grouped into four areas of thematic performance (Box 2.2). The above interventions are discussed in Chapter 3.

An indicative list of key results expected from the identified thematic performance areas is provided (Box 2.3).

¹ The disbursement ratio is defined as the ratio of the disbursements during the year to the net effective undisbursed loan balance at the beginning of the year, as increased by loans declared effective during the year and reduced by cancellations during the year.

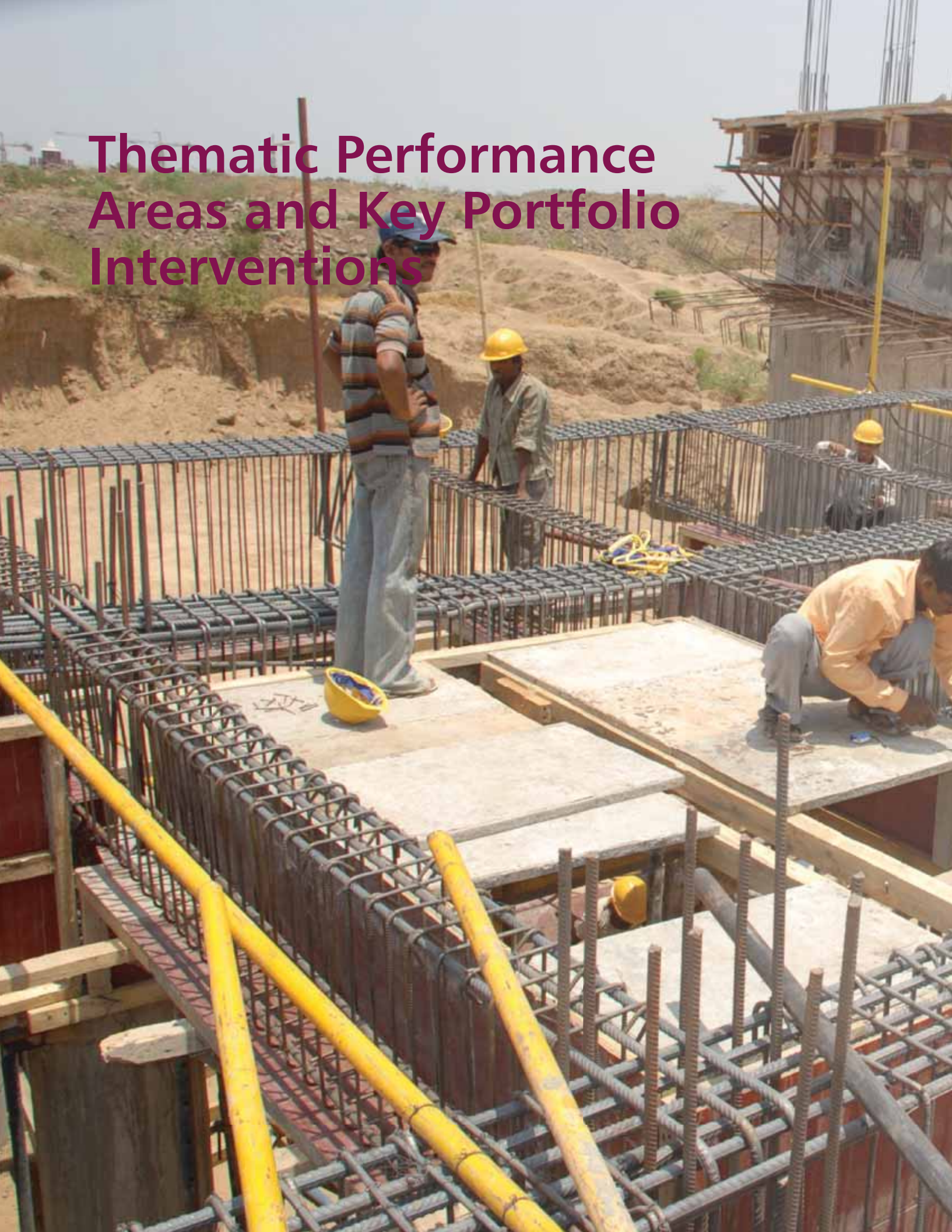
Box 2.2: Thematic Performance Areas of Intervention by ADB

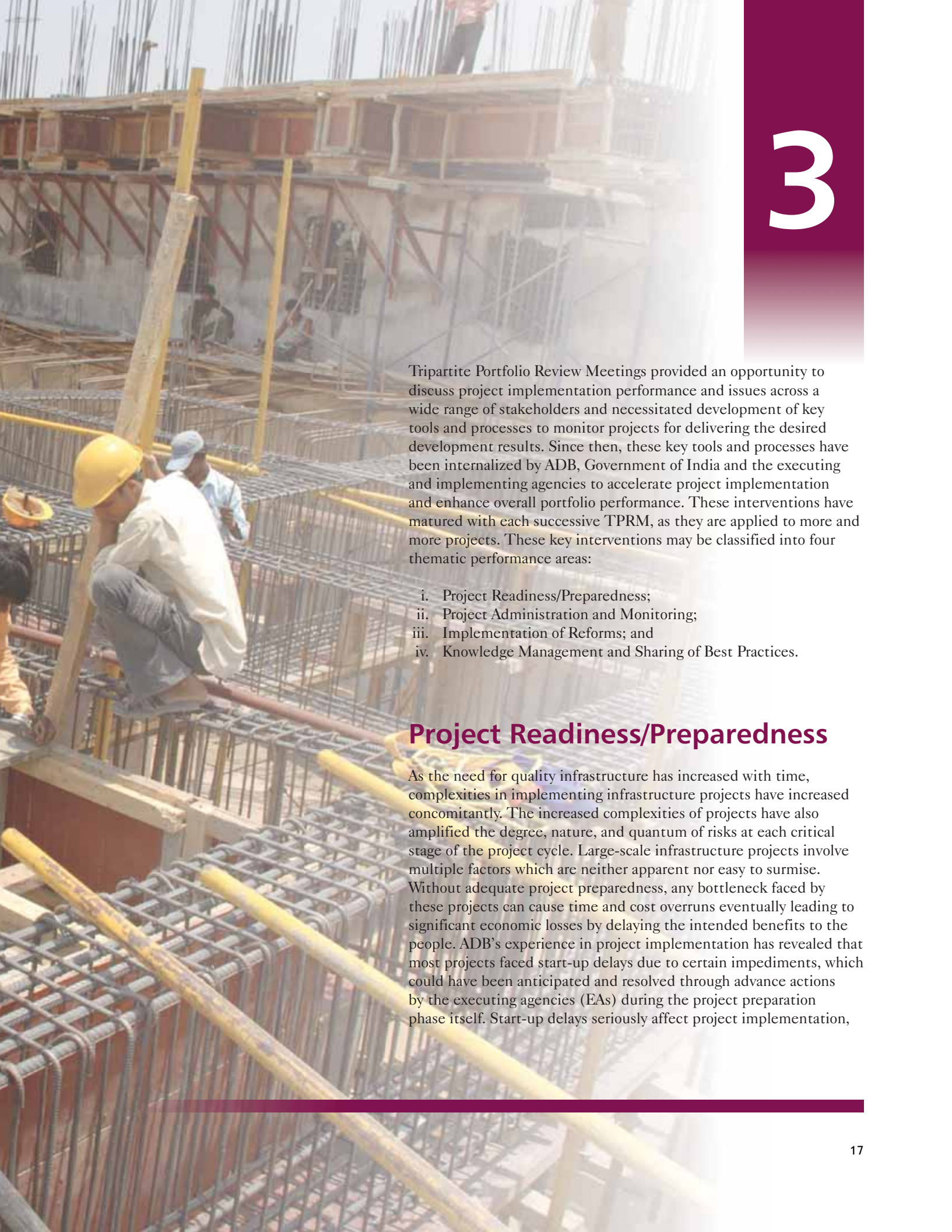
Thematic Performance Area	Intervention as devised by ADB in consultation with DEA and various stakeholders
Project Readiness/ Preparedness	<ul style="list-style-type: none"> Project readiness checklist evolved through a consultative process during three TPRMs to ensure improved project quality at entry and facilitate disbursements after loan-signing Capacity building programs (both national and project level) conducted for staff of executing agencies for accelerating project implementation Business opportunity seminars (BOS) for attracting contractors and consultants to projects for enhancing their participation, promoting competition, and economical bid prices
Project Administration and Monitoring	<ul style="list-style-type: none"> Expanding the input-based monitoring/discussions to project outputs, outcome, reform, and sustainability issues to ensure result-focused project management Early warning project rating system based on short-term assessment of project implementation performance and cross-referencing it with ADB's standard methodology for rating projects at risk ADB/DEA joint field visits at state and project level
Implementation of Reforms	<ul style="list-style-type: none"> Institutional strengthening for improved capacity of executing agencies to take ownership for life-cycle of project assets by discussing O&M measures in post-construction stage Inclusion of PPP/PSP as a supplemental channel for delivery Improved compliance with statutory requirements of Government of India
Knowledge Management and Sharing of Best Practices	<ul style="list-style-type: none"> Cross-learning and sharing of best practices identified from executing agencies and presentations solicited Exposure visits for executing agencies

Box 2.3: Key Results Expected

Key Results Expected
Project Readiness /Preparedness <ul style="list-style-type: none"> Improved quality of projects at entry Reduction of time between loan approval and award of contracts to expedite project implementation, leading to faster disbursements and thereby saving commitment fee payments Decrease in number of projects exhibiting avoidable risks with pre-construction activities, e.g., timely preparation of DPRs, land acquisition and resettlement, statutory environmental clearances, setting up of PMU/ PIUs, procurement, consultant selection, etc. Enhanced capacity of executing agencies to plan, implement, and maintain projects Enhanced participation of contractors and consultants for expediting the procurement activities Decrease in number of 'at-risk' projects from the perspective of development results
Project Administration and Monitoring <ul style="list-style-type: none"> Result-focused project management for achieving development results Timely identification of project implementation issues/bottlenecks and undertaking necessary measures to resolve them Improved understanding of EAs for timely implementation of projects within budget
Implementation of Reforms <ul style="list-style-type: none"> Improved understanding and policy dialogue with respect to sector-level reforms through improved project design and efficient project implementation Better responsiveness among state governments for institutional strengthening and capacity-building measures Improved understanding and ownership of executing agencies to sustain project facilities and institutions Improved understanding and capacity of executing agencies to handle safeguards issues
Knowledge Management and Sharing of Best Practices <ul style="list-style-type: none"> Cross-learning and knowledge sharing among executing agencies across sectors and projects Sharing of best practices in project implementation by executing agencies New skill-sets and approaches internalized by agencies, at the organizational and functionary level Institution-level changes (re-organization) to reflect optimal utilization of the newly acquired capacity and knowledge

Thematic Performance Areas and Key Portfolio Interventions





Tripartite Portfolio Review Meetings provided an opportunity to discuss project implementation performance and issues across a wide range of stakeholders and necessitated development of key tools and processes to monitor projects for delivering the desired development results. Since then, these key tools and processes have been internalized by ADB, Government of India and the executing and implementing agencies to accelerate project implementation and enhance overall portfolio performance. These interventions have matured with each successive TPRM, as they are applied to more and more projects. These key interventions may be classified into four thematic performance areas:

- i. Project Readiness/Preparedness;
- ii. Project Administration and Monitoring;
- iii. Implementation of Reforms; and
- iv. Knowledge Management and Sharing of Best Practices.

Project Readiness/Preparedness

As the need for quality infrastructure has increased with time, complexities in implementing infrastructure projects have increased concomitantly. The increased complexities of projects have also amplified the degree, nature, and quantum of risks at each critical stage of the project cycle. Large-scale infrastructure projects involve multiple factors which are neither apparent nor easy to surmise. Without adequate project preparedness, any bottleneck faced by these projects can cause time and cost overruns eventually leading to significant economic losses by delaying the intended benefits to the people. ADB's experience in project implementation has revealed that most projects faced start-up delays due to certain impediments, which could have been anticipated and resolved through advance actions by the executing agencies (EAs) during the project preparation phase itself. Start-up delays seriously affect project implementation,

increase the burden of commitment charges on the government, and result in cost escalation in most cases.

TOOLS AND INTERVENTIONS

Project Readiness Checklist

To improve project preparedness of the executing agencies, a consensus emerged among the stakeholders during the TPRM on improving the quality of projects at entry by following a set of advance actions during the project preparatory phase in the form of a 'Project Readiness Checklist'. The concept of project readiness checklist was first introduced at the TPRM held in September 2007 by ADB's India Resident Mission and was agreed 'in principle' by DEA and the executing agencies. After several rounds of consultations among ADB's India Resident Mission, DEA and executing agencies, the project readiness checklist was finalized in June 2008. DEA officially issued the project readiness checklist to executing agencies and made it effective from 1 July 2008. Since then, ADB has institutionalized the use of the project readiness checklist in its project processing operations for India to ensure adequate project readiness before loan approval. The achievement of the project readiness checklist milestones by the executing agencies ensures timely actions such as preparation of detailed project report (DPR), establishment of project management units (PMU) and project implementation units (PIU), preparation of standard bidding documents for goods and civil works, request for proposal (RFP) for consultancy contracts, timely action on land acquisition and resettlement matters, and statutory environmental clearances for faster contract awards and disbursements soon after the loan approval. The project readiness checklist is appended in Annex 2 and its impact on portfolio performance is presented in Exhibit 3.1.

Capacity Building Programs

Capacity building programs have been the thrust of ADB to enhance the capacity of executing agencies to plan, implement, and manage projects in a timely and efficient manner. Capacity development assumes greater importance, as ADB operations are expanding to newer states with inadequate capacity and limited experience in implementing large scale infrastructure projects. ADB's India Resident Mission has taken several steps during 2008–10 to substantially enhance capacity building programs on ADB Procedures of procurement, consultant selection, disbursement, safeguard and administration of FIDIC-based contracts. These programs were conducted as residential programs to encourage cross learning and sharing of best practices among executing agencies. These capacity building programs have been focusing on developing the capacity of functional-level middle management staff where attrition is low and to ensure continuity of trained staff on project posts for longer duration. Participants' feedback is continuously used to further improve the quality and coverage of training programs. The annual calendar of capacity building programs for 2011 is appended in Annex 5. The impact of capacity building programs on portfolio performance is presented in Exhibit 3.2.

Business Opportunity Seminars

In the early 2000s, many ADB-assisted projects in India were facing delays in the procurement of goods/works and recruitment of consultants due to poor response of contractors and consultants in the bidding process. Even after several rounds of bidding, executing agencies were not able to award contracts for works and consulting services. This was primarily attributed to low awareness levels amongst the business community regarding ADB-

financed projects and apprehensions of bidders about the executing agencies' ability to make timely payments and ensure transparency in bidding. To address these issues, TPRMs identified BOSs as a possible measure for prospective consultants and contractors to interact with the executing agencies at an early stage. These seminars ensured dissemination of information to business communities on upcoming business opportunities under ADB-assisted projects; to enable them to understand how ADB-assisted projects are different from the usual projects of the executing agencies and the ample business opportunities available based on internationally accepted procurement procedures with transparency and equal opportunity for bidders. Conducting BOSs has now become a standard practice of ADB, with impetus to foster closer interaction with contractors, suppliers, and consultants and to apprise them of business opportunities in ADB-funded projects. After the intervention of the TPRMs in 2007, ADB's India Resident Mission organized the BOSs in November 2008 with the help of associations of contractors and consultants such as National Highway Builders Federation (NHBF), Builders Association of India (BAI), Construction Federation of India (CFI) and Consultancy Development Centre (CDC). ADB's India Resident Mission has also been organizing project-specific BOSs to facilitate interaction of executing agencies with contractors and consultants to apprise them of upcoming

tenders in a particular project and invite them for bidding. In addition, ADB's India Resident Mission has conducted many BOSs for foreign contractors and consultants from particular countries such as Canada, France, etc., in coordination with their embassies and high commissions in India. The impact of BOSs on portfolio performance is presented in Exhibit 3.3.

The above efforts to improve project readiness through institutionalized use of the project readiness checklist, capacity building training programs for executing agencies and BOSs, have significantly reduced the time taken from loan approval to award of first contract. These key interventions have also facilitated disbursements under the projects soon after the loan signing, and hence, reduced the commitment fee payments. Adoption of the project readiness checklist has provided major critical checkpoints to ensure advance preparatory actions by executing agencies in the project processing stage. ADB's continued efforts in capacity building programs have significantly improved the capacity of executing agencies on project implementation matters. Business opportunity seminars have developed sustained interest of contractors and consultants in ADB assisted projects. These seminars have also provided national/international contracting and consulting firms a deeper understanding of ADB's procurement policy and procedures.

EXHIBIT 3.1: PROJECT READINESS CHECKLIST

BACKGROUND

During the monitoring and review of projects in TPRMs, it was generally observed that substantial time was taken from loan approval to first contract award, sometimes even 2 years. The delayed award of contracts was causing slow disbursement in projects, leading to increased commitment charges for Government of India. The delay in award of contracts is attributed to inadequate preparedness by the executing agencies due to absence of key advance steps. These require timely preparation of detailed project reports, setting up of dedicated project management/implementing units with adequate staff, finalization of procurement plans and standard bidding documents, RFP and terms of reference for consultant contracts, acquisition of land, obtaining statutory and administrative clearances from various agencies, preparation of environment management and resettlement plans, and so on.

To assess whether a particular project was ready to start utilizing loan funds, the project readiness checklist was developed jointly by DEA and ADB in consultation with executing agencies after several rounds of deliberations over the series of TPRMs. Over time, it has become an effective tool for ADB, DEA, and executing agencies to determine whether any project is adequately prepared and ready to incur expenditure soon after the loan approval by ADB. Effective 1 July 2008, all the loan projects under processing are required to meet various milestones outlined in the project readiness checklist before the loan is negotiated between ADB, DEA, and executing agencies. Executing agencies returning for repeat ADB loans have found it particularly useful in enhancing their readiness for future projects in a timely and efficient manner. For example, executing agencies for Himachal Clean Energy Project (Table E3.1.2) and Bihar State Roads Project (Table E3.1.3) were able to award the first contract within 3 months of loan signing and subsequent contracts were also awarded in a short span of time.

BEFORE THE INTERVENTION

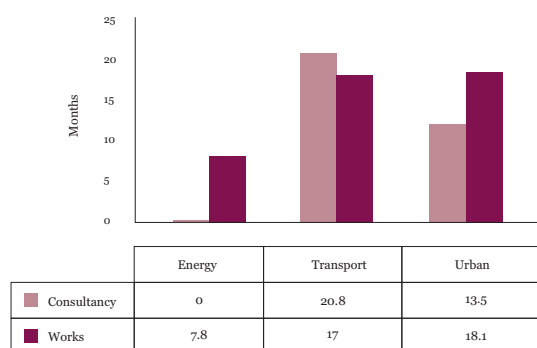
CONDITIONS THAT NECESSITATED THE INTERVENTION

- The average time taken between signing of a loan agreement and award of the first contract was more than 13 months, compared to a “reasonable” time of 3 months.
- Even after first contract was awarded, subsequent contract awards were delayed due to causes that could have been foreseen even at the project preparatory stage.

ASSESSMENT OF UNDERLYING CAUSES

- Lack of a standardized process or guiding system that indicates if all necessary administrative and financial approvals and pre-construction activities have been carried out in a timely manner
- Lack of a sound and viable project implementation plan with all possible scenarios and contingencies planned and appropriately factored in by the executing agencies

Figure E3.1.1: Time to Award First Contractor after Loan Sanction Prior to Launch of PRC



APPROACH TAKEN

CONSULTATIONS HELD BETWEEN DEA, ADB, AND EXECUTING AGENCIES

The construction and development phase of the project is divided into various sub-stages and potential 'milestones' identified at each of the following stages:

- **Inception Stage:** Need identification, justification, assessment of viability and formulation of a detailed project report
- **Preparatory Stage:** Dedicated PMU/PIUs, statutory clearances, procurement plan, bidding documents, land acquisition and resettlement, and upstream and downstream requirements
- **Implementation Phase:** Tendering, award of contracts and execution of works on ground
- **Monitoring and Evaluation:** Analysis of typical implementation issues/bottlenecks faced and identify appropriate solutions to resolve them in a timely manner and evaluate the project performance at regular intervals

FIVE STAGES IDENTIFIED FOR ASSESSING THE "READINESS" OF EXECUTING AGENCIES FOR A PARTICULAR PROJECT

- Loan fact-finding mission
- Loan appraisal
- Loan negotiations
- Loan signing
- Loan effectiveness

DIVIDED PROCESSES AT EACH STAGE BETWEEN ADB, GOVERNMENT OF INDIA, AND EXECUTING AGENCY?

- How is each entity responsible for each process?
- What risks and vulnerabilities exist within each process? Are these avoidable through advance actions?
- Who is to do what at each stage to alleviate/reduce implementation risks?
- How would such advance steps taken by the entities help in enhancing the readiness of a project and reducing project implementation time/bottlenecks?

HOW THE PRODUCT WAS DEVELOPED

Inception	The project readiness checklist introduced at the TPRM held in September 2007; DEA acknowledged the merits of the system, but sought more consultations with the executing agencies on the issues prior to finalizing it.
Deliberations	Discussion continued for development of a suitable filter to be used by both, the government and ADB. All project preparatory activities, including their interrelation and sequencing, were also reviewed in relation to the requirements of both government and ADB in project preparation. A model project preparation chart was developed to visualize the critical issues for a typical infrastructure development project.
Launch and Reception	In April 2008, ADB and DEA finalized the project readiness checklist; thereafter, it was mandated that all new projects should follow the project readiness checklist. Some of the earlier projects had these conditions inbuilt, but all the executing agencies were asked to strictly adhere to the project readiness checklist henceforth.
Internalization	DEA officially internalized the project readiness checklist as a standard operating procedure in the TPRM held in July 2008.

HOW THE INTERVENTION WORKS

PROJECT READINESS CHECKLIST DEPLOYED BY ADB AND DEA FOR IMPLEMENTING AND EXECUTING AGENCIES

- Five stages of readiness assessment checks till loan amount is actually disbursed the first time
- Ensures that all pre-project procedural obligations are complete before fund transfer
- Fund commitment based on probability of projects being stalled by legal or procedural complications
- Ensures that executing agency is actually in a position to spend its counterpart inputs prior to ADB loan assistance
- Improves compliance baselines for projects and their executing / implementing agencies.
- Reduces reporting requirement at the level of DEA

PROJECT READINESS STAGES

Asian Development Bank	Government of India	Executing or Implementing Agency
Loan Fact-Finding Mission		
<ul style="list-style-type: none"> • PPTA substantially completed 		<ul style="list-style-type: none"> • Feasibility study report and preliminary design completed • Upstream and downstream linkages
Loan Appraisal		
<ul style="list-style-type: none"> • Procurement plan to be cleared • Terms of reference to be cleared • Environmental management plan (EMP) and resettlement plan (RP) to be cleared 	<ul style="list-style-type: none"> • Line ministry to provide its concurrence for project • Approval for sovereign guarantee by Budget Division 	<ul style="list-style-type: none"> • Obtain FRBM Clearance from Department of Expenditure • Designation of PMU/PIUs staff completed and core staff for the project assigned. • Counterpart fund commitment • Procurement plan to be prepared • Terms of reference for consultants, short list of firms and pre-qualification document prepared and approved • Environmental management plan (EMP) and resettlement plan (RP) for the first two years of project implementation to be in place.
Loan Negotiations		
<ul style="list-style-type: none"> • Review and approve standard bid documents/ RFPs • Review financial management system/project audit system 	<ul style="list-style-type: none"> • To guide executing agencies and ADB 	<ul style="list-style-type: none"> • Standard bid documents/RFPs in place for all procurements in the first 24 months and RFP issued to shortlisted consultants • Project Implementation Plan/ Project Administration Manual covering scope, organization and its terms of reference, procurement, budgeting, disbursement, reporting and auditing arrangement to be in place

Asian Development Bank	Government of India	Executing or Implementing Agency
		<ul style="list-style-type: none"> • 50% land acquisition to be completed • Administrative approvals for using right-of-way and shifting utilities • All statutory environmental and forest clearances to be in place
Loan Signing		
<ul style="list-style-type: none"> • Procurement actions of executing agencies to be cleared at relevant stages 	<ul style="list-style-type: none"> • To guide executing agencies and ADB 	<ul style="list-style-type: none"> • All consultancy contracts and about 30% of civil work contracts to be awarded within a month after loan signing
Loan Effectiveness		
<ul style="list-style-type: none"> • Result-based monitoring framework with respect to specific project established 	<ul style="list-style-type: none"> • Takes cognizance of result-based management framework for review 	<ul style="list-style-type: none"> • Dedicated PIUs established • Legal opinions taken

RESULTS

The average time taken for the first contract award from the time of loan approval was 13.4 months for loans approved during January 2007 to September 2008. After the project readiness checklist was made effective from 1 July 2008, the time taken from loan approval to first contract award declined sharply to 6 months for loans approved during September 2008 to December 2009 (Table E3.1.1). An analysis of the causes for this significant improvement revealed that many of the projects approved during the period of July 2008 to June 2009 were follow-on projects with the executing agencies that had implemented ADB-financed projects previously. However, these also included some projects with first-time executing agencies for Himachal Pradesh Clean Energy Project and Bihar State Roads Project.

It is observed that the project readiness checklist:

- Has been effective in achieving high project readiness for expediting project implementation;
- Provides major critical checkpoints and advance actions necessary for implementation aspects in the preparatory phase;
- Meets the procedural requirements of ADB, state governments and Government of India.

Table E3.1.1: Average Time Taken for First Contract Award Before and After Application of Project Readiness Checklist

Project Approved During	Number of Project	Months before first contract
January 2007 – September 2008	14	8.9
September 2008 – December 2009	19	5.9

Note: Above situation was not a result of the application of the project readiness checklist alone

Table E3.1.2: Loan Processing vs Project Implementation, Himachal Clean Energy (Loan 2461, \$150M)

Processing	Milestone Dates	Implementations
	Pre-ADB involve	DPR created by Government Fund
Pre FF Mission	22-28 Oct 07	Discussion on procurement
FF Mission	19-30 Nov 07	Review Bid Documents
	Feb-08	Resettlement Plan Finalized
ADB Management Review Meeting	10-Mar-08	Procurement advertisement on ADB website
Appraisal Mission	25 Mar- 4 April 08	Bid Doc Issued with Newspaper Advertisement
	Apr-08	SEIA Report Finalized
ADB Staff Review Committee	27-May-08	Procurement Plan Finalized
	Jul-08	EA Joined TPRM
Loan Negotiation	10-11 Sep 08	
ADB Board Approval	23, 27 Oct 08	
Loan Signing	10-Nov-08	
	Nov-08	EA Joined BOS
Loan Effectiveness	15-Dec-08	
	Jan-09	Inception Mission, project specific capacity building (proc, disb), Project Administration Memo Finalized
4 Months	10-Feb-09	First Contract Award (civil works)
	Feb-09	EA Staff Joined Nation wide Capacity Building Program
	3-Mar-09	Contract Signing Substantially Completed
6 Months	15-Apr-09	First Disbursement (ICB Plant)
	20-Jul-09	\$134M, Awarded; \$7M Disbursed

Table E3.1.3 : Loan Processing Vs Project Implementation, Bihar State Road (Loan 2443, US\$ 420 million)

Processing	Milestone Dates	Implementations
		DPR Prepared Under TA
Fact Finding Mission	5-30 Nov 07	
	Nov-07	EA Joined BOS
	4-Feb-08	Bid Documents Issued
	Feb-08	EA Staff Joined Capacity Building Program
<i>ADB Management Review Meeting</i>	28-Mar-08	
	15 Apr 08	Request for proposal issued
Appraisal Mission	6-13 May 08	Project Specific Capacity Building
	3-Jun-08	Resettlement Plan Prepared
	3-Jun-08	IEE Prepared
<i>ADB Staff Review Committee</i>	13-Jun-08	
	Jul-08	Bihar RCD (EA)Joined TPRM
Loan Negotiation	19-Aug-08	
ADB Board Approval	18-Sep-08	
Loan Signing	10-Nov-08	
	22-Nov-08	Contract Award (civil works)
	5-Dec-08	Contract Award (consultant)
Loan Effectiveness	8-Jan-09	
	Mar-09	Disbursement (Consultant)
	Mar-09	Disbursement (civil works)
	Jun-09	Contract Award completed
	20-Jul-09	\$282M awarded; \$26M disbursed

EXHIBIT 3.2: CAPACITY BUILDING PROGRAMS FOR ACCELERATING PROJECT IMPLEMENTATION

BACKGROUND

The focus of ADB on development of infrastructure in India is driven by the adoption of internationally accepted, sound, and proven practices in project planning and administration while adhering to social and environmental safeguards throughout implementation. ADB-assisted projects aim at long-term sustainability of the assets created and at building the capability of executing agencies to operate and manage them optimally over their lifecycle. One of the key challenges in implementation of an infrastructure project in India is constrained capacity of executing agencies in planning, implementing, and managing projects on time and within the stipulated budget. In many cases, where executing agencies were assigned the responsibility of implementing ADB-assisted projects, adherence to legacy and conventional systems of procurement, project management, and contract management often slowed the pace of implementation, or exposed project implementation to significant risks, leading to cost and time overruns. As a result, executing agencies find themselves in a weak position due to inadequate capacity in executing projects of such scale or complexity. In some cases, appropriate skill sets for ensuring compliance to safeguards requirement and financial reporting standards for externally financed projects were not available with the respective executing agencies.

ADB has taken cognizance of these issues and has been taking specific initiatives to address such capacity constraints through capacity building for personnel of executing agencies. ADB's India Resident Mission has taken several steps during 2008-2010 to substantially enhance the capacity building programs on ADB Procedures of procurement, consultant selection, disbursement, safeguards and administration of FIDIC-based contracts. These programs were conducted as residential programs to encourage cross learning and sharing of best practices among the personnel of executing agencies, and were focused on functional-level middle management staff where attrition is low to ensure continuity of trained staff on project posts for longer duration. For executing agencies that are dealing with advance stages of project implementation, capacity building programs are being expanded to cover construction management, quality assurance, operations and maintenance, and other technical/thematic topics such as trenchless technologies, water demand management, preparation of DPRs, GIS and mapping etc.

BEFORE THE INTERVENTION

CONDITIONS THAT WARRANTED THE INTERVENTION

- Identification of sub-projects by executing agencies was often delayed due to limited technical knowledge
- There was no use of international best practices in project planning, procurement and project management
- Executing Agencies lacked knowledge on management of FIDIC-based contracts for works and goods
- Executing agencies availing ADB loan assistance for the first time were not familiar with ADB guidelines and procedures on procurement, consultant recruitment, disbursement, and safeguards requirements
- There was poor response in bidding process and receipt of inflated bid prices
- Project implementation plans did not reflect knowledge of state-of-the-art techniques or application of modern decision support tools such as Management Information System, project management software tools like MS-Project etc

ASSESSMENT OF UNDERLYING CAUSES

- Many executing agency officials, although familiar with the general formulation of projects, were not conversant with ADB procedures for sub-project identification and project implementation;
- Conventional methods were being used for procurement and awarding contracts. In many cases, international competitive bidding was discouraged due to apprehension of lack of in-house capability to manage bid process and contract administration.
- Contracts were made based upon conventional formats often lacking equitable risk allocation, leading to bidders quoting a high-risk premium and resulting in higher

- There was low emphasis on safeguards and benefit monitoring during project implementation

quotes than budgeted costs. Also, contracts did not have effective dispute resolution mechanism.

- Executing agencies availing ADB loan assistance for the first time showed low understanding on administration of FIDIC-based contracts and ADB procedures on quality and cost-based selection of consultants, disbursement, safeguards, and project implementation.
- Several executing agencies required orientation to modern project management tools to make best use of project management software

LEGACY APPROACH FOR CAPACITY BUILDING TRAINING PROGRAMS

Till 2007, training programs were organized by ADB Headquarters, generally once a year at ADB's India Resident Mission premises or other venues in Delhi on a non-residential basis. The training sessions were mainly focused on ADB procedures on procurement, consultant selection, and disbursement. The trainees usually consisted of Project Directors and other senior officials from the executing agencies. This modality, although appropriately structured, led to several operational issues:

- The training programs focused only on ADB procedures and did not address systemic and skill-based capacity issues within the executing agencies;
- The programs being conducted when projects were under implementation, the Project Directors were often unable to attend the training for the full duration.
- The training and development courses were limited only to senior executing agency officials who often could not effectively transfer knowledge to middle-level project functionaries on the ground, resulting in limited application.

APPROACH TAKEN

CHANGES TO THE FOCAL AREAS OF CAPACITY BUILDING TRAINING PROGRAMS

- A comprehensive training needs assessment survey was conducted in 2008 in consultation with DEA to determine the training areas where officials of the executing agencies needed capacity building. Training areas were divided into generic areas, common to all sectors and forms of projects, and areas specific to sectors, projects and groups of agencies. A training calendar is developed for each year since 2008, with national level programs on ADB procedures being held twice a year and trainings on sector/thematic topics as required (Table E3.2.1).
- Apart from agencies that had already embarked on project implementation, the new modality also focuses on agencies that are either yet to begin implementation, or even those, whose loan projects are under consideration for ADB approval.
- In 2010, it was determined that the executing agencies that were already deep into project implementation, needed a different set of training programs such as administration of FIDIC-based contracts, construction management, preparation of DPRs, quality assurance, operations and maintenance, and other technical/thematic topics such as trenchless technologies, water demand management, GIS and mapping.
- The venue of trainings was shifted from ADB's India Resident Mission office to other venues, which were logistically easier to access for project functionaries.
- The training programs were extended to middle and junior functionaries of executing agencies. Further, the involvement of DEA has also been increased; DEA often assists in the nomination of select personnel from executing agencies.
- The training and development activities are now being conducted prior to loan signing, as opposed to after loan signing as was done before 2008.

STRUCTURAL CHANGES IN CAPACITY BUILDING TRAINING PROGRAMS

- Exclusive funding support was extended to the training and development activities. A technical assistance (TA) grant of US \$225,000 was provided in 2008 and capacity development TA grant for \$1.5 million in 2010. These TAs provide exclusive funds for conducting the capacity building training programs.
- Constitution of thematic groups focused on specific sectors, e.g., urban development, in order to facilitate cross-learning across various agencies. These forums interact through group meetings held regularly.

AFTER THE INTERVENTION – INITIATIVES TAKEN UNDER THE CAPACITY BUILDING PROGRAM AND RESULTS

CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE (\$1.5 MILLION)

Specific training programs on project implementation, capacity development in technical and thematic topics relevant to sector reforms and sustainability, cross-learning through field visits, national and project specific BOSs, publication of best practices etc.

Table E3.2.1: Trends in Executing Agency Participation in National Capacity Development Programs

Common areas for capacity building	2008		2009		2010		Total	
	EA staff	Days	EA staff	Days	EA staff	Days	EA staff	Days
Procurement	247	542	72	216	205	437	524	1195
Selection of consultants	112	258	60	120	93	186	265	564
Disbursement processes	214	307	66	198	185	360	465	865
Safeguards	67	111	144	136	282	282	493	529
Project management	0	0	40	200	0	0	40	200
Contract administration	0	0	76	152	64	128	140	280
Total	640	1218	458	1022	829	1393	1927	3633

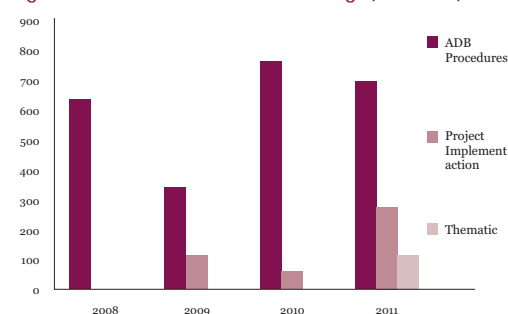
COLLABORATION WITH VARIOUS NATIONAL INSTITUTES

Indian Academy of Highway Engineers (IAHE), National Institute for Construction Management and Research (NICMAR), Consulting Engineers Association of India (CEAI), Indian Society for Trenchless Technologies (IndSTT), Administrative Staff College of India (ASCI), The Energy and Resources Institute (TERI), Indian Institute of Technology (IIT), Roorkee

INCLUSION OF NEW TRAINING MODULES ON SECTOR/THEMATIC TOPICS

Procurement and contract administration clinics, safeguard procedures for consultants and contractors, project management, ADB procedures for new projects, DPR preparation for state highway projects, construction management, irrigation water scheduling, urban forum, road safety, trenchless technologies and water demand management (Figure E3.2.1).

Figure E3.2.1: Focal Areas for Training (2008–11)



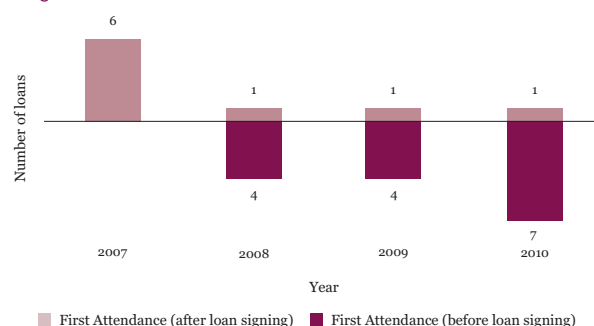
PROGRESS OF CAPACITY BUILDING PROGRAMS IN 2011

As of 15 August 2011, about 650 executing agency officials have been trained against the target of 1,000 executing agency staff in 2011.

EXPOSURE TO ADB PROCEDURES BEFORE LOAN SIGNING

The preparation of annual training calendar in advance has helped executing agency officials to plan their participation in capacity building programs in order to get exposure to ADB procedures much before the loan signing. For example, executing agency officials working on six projects in 2007 received training on ADB procedures after the loan signing, while the executing agency officials working on 15 new projects during 2008-10 got systematic exposure to ADB procedures much before the loan signing, enabling better project preparedness. Building awareness among executing agencies on ADB procedures at an early stage of the project cycle contributes to efficient project planning and implementation (Figure E3.2.2).

Figure E3.2.2: Change in Positioning of Capacity Building Programs



Capacity Building Training on FIDIC Contract Management, New Delhi, July 2011



Workshop on Municipal Accounting Refoms, New Delhi, Aug 2011

PROPOSED INITIATIVES

Aspect	Present State of Affairs	Proposed Enhancements (some of these have already been implemented)
Resources	ADB staff from its India Resident Mission and headquarters conduct training programs on procurement, consultant selection, disbursement and safeguards	Additional resource persons, either among ADB staff or consultants, would be identified so that more programs can be conducted to cover the needy executing agencies. These experts will act as mobile teams to conduct training programs at project sites. Experts from ADB community of practice (COP) could be invited for thematic training sessions to share their experiences and best practices in project implementation.
Project-Specific Programs	Two officials from each EA are generally accommodated in each of the national-level training programs	In addition to an increase in the overall number of programs, the number of project-specific programs will be increased so that greater number of project staff can be trained. The cost of the programs will also come down as EA facilities will be used to conduct the programs; additionally, EA staff need not travel far. Annual training calendar for project-specific programs will be developed in consultation with ADB project officers based on the likely dates of loan approvals.
Video Module	In progress.	The effectiveness of training programs may be increased by training executing agency staff through video modules. ADB's India Resident Mission is actively considering this option. Each of these video modules can be delivered to executing agency EA staff in the form of optical media or streaming on easily accessible website, depending on their requirement.
Additional Training Topics	Focus areas limited to project administration and functional aspect of projects	In addition to the training programs on ADB procedures, training topics should also enable capacity development in other areas such as project management, construction management, contract administration, operations and maintenance etc. These additional topics will be identified on the basis of the results of the training needs assessment surveys.
Training Website	In progress.	A training portal that would have online registration and feedback facility, training material, training calendar, and trainee database will be developed.
ADB Orientation Forums	Orientation forum conducted in May 2011 for senior state government officials for ADB-assisted projects in north-eastern states	In 2011, the India Resident Mission has introduced ADB orientation forums for new projects. The objective of the forum is to introduce the executing agencies and the nodal departments involved in the processing and implementation of the projects to ADB's policies and procedures concerning procurement, consultant recruitment, fund flow, and safeguards.

EXHIBIT 3.3: BUSINESS OPPORTUNITY SEMINARS

BACKGROUND

Business opportunity seminars were identified as a forum to improve participation by consultants and contractors to ADB-assisted projects, as bidders' responses to tenders for several projects were limited. Conducting BOSs has now become a globally acknowledged practice of ADB, where considerable impetus is provided to foster a closer interaction with the contractors and consultants to apprise them of business opportunities in ADB-funded projects. In the initial years, these seminars were conducted in association with the Federation of Indian Export Organizations (FIEO) and the Export Import (EXIM) Bank of India. As the member entities belonging to FIEO and EXIM were mainly suppliers, these seminars could attract only a few construction contractors and consultants.

From 2007 onwards, after the intervention of TPRMs, the BOSs were organized in tandem with associations of contractors and consultants, viz. National Highway Builders Federation (NHBF), Builders Association of India (BAI), Construction Federation of India (CFI) and Consultancy Development Centre (CDC). ADB's association with these organizations has facilitated increased participation of contractors and consultants in projects. The first series of BOSs with these organizations was conducted in November 2008. The response from contractors and consultants to the initiative was overwhelming, and projects such as state road projects in Bihar and Jharkhand were able to attract more contractors and consultants.

ADB's India Resident Mission has also been organizing project-specific BOSs to facilitate interaction of executing agencies with contractors and consultants to apprise them of upcoming tenders and invite them for bidding. In addition, many BOSs have been conducted for international contractors and consultants from countries such as Canada, France etc in coordination with their embassies in India.



Seminar on business opportunities in November 2009 at Hyderabad



Seminar on business opportunities in November 2008 at New Delhi

BEFORE THE INTERVENTION	
CONDITIONS THAT NECESSITATED THE INTERVENTION <ul style="list-style-type: none"> • Shortage of good contractors and consultants who can complete the works in time • Inadequate response of contractors and consultant in bidding for projects located in remote areas • Unsatisfactory performance of existing contractors and consultants 	ASSESSMENT OF UNDERLYING CAUSES <ul style="list-style-type: none"> • Delay in award of contracts for goods, works and consulting services • Lack of competition leading to inflated bid prices compared with estimated bid prices • Delay in completion of contracts leading to overall delay in project implementation
APPROACH TAKEN	
SHOWCASING BUSINESS OPPORTUNITIES IN ADB PROJECTS¹ <ul style="list-style-type: none"> • Promote face-to-face interactions between the representatives of executing agencies and prospective bidders; • Encourage executing agencies to attend seminars and disseminate business opportunities for their respective projects; • Foster understanding of ADB procurement procedures among contractors, suppliers, and consultants with focus on transparency and equal opportunities to all bidders in ADB-funded contracts • Develop a pool of efficient contractors and consultants for continued interest in ADB-funded contracts 	ACTION PLAN <ul style="list-style-type: none"> • ADB's India Resident Mission to organize BOSs for contractors and consultants • Build confidence amongst contractors and consultants through information dissemination on the advantages of participating in ADB-assisted projects; • Enhance networking with business associations representing contractors and consultants • Conduct project-specific BOSs more frequently to facilitate interaction between executing agencies and business communities • Invite executing agencies to present upcoming business opportunities in their respective projects
HOW THE PRODUCT WAS DEVELOPED	
Inception	From 2007 onwards, it was agreed during the TPRMs that ADB would organize BOSs more frequently to enhance participation of bidders to speed up procurement of goods, works, and services.
	ADB's India Resident Mission organized a series of BOS in Delhi, Kolkata, and Mumbai in December 2007, which attracted a total of 237 consultants, contractors, and some diplomats, in addition to several executing agencies.
Growth	ADB's India Resident Mission organized another series of BOS in November 2008 at Delhi, Mumbai, and Hyderabad; and in November 2009 at Delhi, Mumbai, Hyderabad, and Kolkata.
	As agreed during the TPRM in November 2009, ADB's India Resident Mission also conducted many project-specific BOS to overcome the hurdles posed by poor participation of contractors and consultants in remote area projects.

¹ See Figure E3.3.1

HOW THE INTERVENTION BENEFITED BUSINESS COMMUNITY

- Assured availability of funds for projects
- Use of internationally accepted procurement procedures
- Equal treatment of bidders from member countries
- Exemption of excise and custom duties
- ADB oversight on all procurements to ensure transparency and fairness in procurement process

Figure E3.3.1 Opportunity Showcasing at BOS



RESULTS

- Successful in attracting contractor/consultants to ADB projects
- Enabled bidders to enhance their business prospects in securing contracts funded by ADB
- Provided national/international contracting and consulting firms with a deeper understanding of ADB policy and procedures for procurement of goods and services
- Enhanced the reputation of executing agencies as good employers
- Provided remote area projects with an effective forum to showcase their opportunities to potential bidders. For example, Road Construction Department (RCD) of Jharkhand state participated in BOS organized by ADB's India Resident Mission in November 2009 at Kolkata, Hyderabad, Delhi and Mumbai. This resulted in huge response from competent contractors from all over the country for civil work contract of Jharkhand State Roads Project (JSRP). 45 bids were received for 4 contract packages.



Business opportunity seminar, New Delhi, 2009

Project Administration and Monitoring

The key activities of portfolio management comprise review and monitoring of projects to expedite project implementation and achieve the desired development results. The project administration activities usually include internal portfolio review mechanisms and ADB review missions to projects. ADB review missions are conducted by ADB staff and are aimed at assessing project implementation status at various stages such as inception, intermediate review, mid-term, and project completion; and usually assess whether:

- Particular implementation milestones have been satisfactorily met by the executing agencies;
- Implementation is affected by any critical issues; and
- Appropriate remedial measures have been identified to resolve those issues.

Project monitoring, on the other hand, comprises deployment and usage of systems that provide information about the qualitative and quantitative progress of the project, and whether it is likely to achieve targeted physical/financial progress and loan covenants. These systems can rate projects on the basis of either short-term project performance or long-term project performance over the project lifecycle.

Review and monitoring activities together form a basis for determining where any corrective actions are required to help a project resume its originally expected course of progress, or if there is a need to correct the design and monitoring framework of the project itself.

TOOLS AND INTERVENTIONS

Result-focused Project Management

The result-focused project management approach focuses on using results information, i.e., desired outputs, outcomes, and impact to steer development efforts towards clearly defined goals. This approach involves the following key phases:

- Strategic planning and resource allocation;
- Selecting indicators and targets (from short to long term) for measuring performance;
- Establishing responsibility and accountability for planned actions;
- Measuring and evaluating performance and results; and
- Using results to outline actions and further improve project performance.

While ADB's operations in India are fully in consonance with its development objectives, there was a strong realization that the portfolio review mechanism prior to 2005 focused on inputs-based activities like contract awards and disbursements, with physical progress and implementation issues being given little or negligible attention. A major turnaround happened in September 2007 when TPRM discussions expanded to monitor development results that include achievement of outcomes, outputs, and issues related to the softer side, i.e., the reform agenda, sustainability of project facilities and institutions, operations and maintenance of completed assets, and capacity building of executing agencies for operating and maintaining those assets efficiently, both at project and at sector levels. The impact of result-focused project management on portfolio performance is presented in Exhibit 3.4.

Early Warning Project Rating System

The pre-existing monitoring system employed by ADB is known as a Project Performance Report (PPR). It employs a project rating system that includes ratings based on assessment of project outcomes and outputs and implementation progress. There are four project ratings: highly satisfactory, satisfactory, partly satisfactory, and unsatisfactory. The system also indicates whether a project is 'at risk' or not; and whether a project is affected by any 'potential problem'. While, in principle, the PPR captures comprehensively the 'health' of implementation of a project, a number of operating issues precipitated the need for a more objective system of quick reporting that would bring greater uniformity between different projects over shorter terms and identify projects both 'at risk' as well as 'on watch' (not yet at risk, but could become so if not monitored).

The issues were:

- The possible 'understatement' of certain areas requiring immediate attention on account of the overall lifecycle of the project being taken at a single instance as opposed to a short-term perspective
- The general complexity of the system
- Discretion of the reporting officer on non-objective parameters.

With the continuous expansion of ADB portfolio in India, it became necessary to develop an easy to use monitoring tool that could predict whether a project would face any implementation issues, and the criticality thereof. To address this issue, ADB's India Resident Mission developed an early warning project rating system based on color coding in June 2010, to assess short term implementation performance. The system rates projects purely from the implementation aspect and classifies them into three groups: green, yellow, and red. A



Kolkata Environment Improvement Projects SHG

project is classified as green if it does not face any implementation problem and can be completed on time and within budget. A project is classified as yellow if it is facing one or more implementation problems that may either delay the completion or increase the budget. A green project does not require intensive monitoring. A yellow project requires close monitoring, a time-bound action plan, and frequent review missions. A red project is one that faces serious implementation problems that may substantially delay the completion or increase the project cost, and requires a thorough review to ensure that the critical issues are addressed and project is completed as scheduled.

This project rating system has the advantage of being based on easily measurable quantitative criteria, and serves as an early warning system wherein preventive measures can be taken in advance. The impact of early warning project rating system on portfolio performance is presented in Exhibit 3.5.

ADB-DEA Joint Field Visits

In 2008, ADB and DEA took the initiative for promoting joint field visits for further enhancing portfolio performance. The joint field visits are undertaken specifically for those states where projects have hit a

roadblock and are not progressing smoothly. Based on the issues highlighted during the previous review missions, ADB officials, along with DEA officials, conduct state-level joint field visits to the projects across sectors. During the joint field visits, ADB and DEA officials meet the chief secretary of the state, senior officials from executing agencies, concerned secretary of the state line ministry, and contractors/consultants to understand their issues and resolve them at the earliest. The impact of ADB-DEA joint field visits on portfolio performance is presented in Exhibit 3.6.

The efforts to strengthen the project administration and monitoring mechanisms by adopting a result-focused project management, Early Warning Project Rating System for short-term assessment of project implementation, and conduction of ADB/DEA joint field visits have helped to ensure that corrective measures are adopted for resolving bottlenecks in project implementation at an early stage, in an effective manner. These measures have provided a systematic methodology for identification of projects which are 'at risk' and have enabled ADB to resolve issues in project implementation in a timely manner. This has also led to fast reduction of impedance and bottlenecks in project implementation and to better portfolio performance.

EXHIBIT 3.4: RESULT-FOCUSED PROJECT MANAGEMENT

BACKGROUND

ADB is committed to assisting Government of India meet its commitments under the Millennium Development Goals (MDGs) by 2015 and has positioned its Country Partnership Strategy to meet the capacity and facilitative requirements for implementing the National Five Year Plans, aimed at meeting the targets under the MDGs. During 2007 there was growing realization within ADB that the existing mechanism for portfolio review was overly focused on immediate targets of contract award and disbursements, and was not able to provide a holistic view of aid effectiveness in line with the developmental outcomes of Government of India and ADB's Country Partnership Strategy. This view became the basis for the involving stakeholders, viz. project executing agencies during TPRM, in looking at the 'the larger picture' of development while implementing projects on the ground. The portfolio review mechanism, therefore, needed to be augmented so that all stakeholders would work with a common understanding of the intended developmental outcomes and outputs and be able to formulate projects and sustainability concerns accordingly, within the design itself.

Pursuant to this idea, it was jointly perceived by the stakeholders during that policy covenant, project viability, and sector sustainability issues required greater attention and a direct link to the development objective. This need was identified through several rounds of deliberations in TPRM, which led to the development of a new approach for the project review mechanism that focused on the impact and outcomes of project in terms of the benefited population, linked to the physical output of project, and of sustainability and implementation issues. This was done at both project and sector levels. While the general purpose of this tool is to help ADB and Government of India in quantifiably linking the project outputs to development outcomes, and hence, expand the monitoring framework beyond simple outputs, it has also assisted the executing agencies to address the larger developmental concerns associated with their project(s), and in certain cases, reach a common consensus with executing agencies and stakeholders in appropriately formulating projects.

BEFORE THE INTERVENTION

CONDITIONS THAT NECESSITATED THE INTERVENTION	QUESTIONS THAT REQUIRED TO BE ANSWERED WHILE ADDRESSING DEVELOPMENT GOALS WITH RESPECT TO PROJECTS
<ul style="list-style-type: none"> • Need for linking projects to specific national developmental outcomes • Reporting requirements for demonstrating development effectiveness in terms of actual difference made on the ground and to the public at large • Executing agencies required to look at the 'larger picture' and position the 'right project' at the 'right time' at the 'right place' 	<ul style="list-style-type: none"> • Are we being effective at country, sector, and project levels? • How do we know we are effective? What tools can/do we use? • How to use this information to determine the future plan of action? • How to learn from each other and share experiences? • How to better demonstrate achieved results at project and sector levels?

APPROACH TAKEN	
SHIFT FOCUS FROM I-BASED MONITORING TO A HIGHER LEVEL OF MONITORING OUTPUTS, OUTCOMES, AND IMPACT TO ASSESS DEVELOPMENT EFFECTIVENESS	ACTION PLAN FOR DEMONSTRATING DEVELOPMENT EFFECTIVENESS
<ul style="list-style-type: none"> • Greater focus on reform agenda • Result-based project implementation • Base line data collection • Identify output and outcome indicators and targets • Review achievement against targets • Monitoring problems faced, the causes and solutions 	<ul style="list-style-type: none"> • Establishing design and monitoring frameworks for all ongoing loans • Sector/sub-sector result frameworks • Other approaches for sharing and cross learning
HOW THE PRODUCT WAS DEVELOPED	
Inception	Result-based project monitoring was mooted at the March 2007 TPRM. The focus of portfolio review would encompass not only input monitoring, but also the outcomes and outputs.
Deliberations	ADB's India Resident Mission introduced the Draft Action Plan for demonstrating development effectiveness at the July 2008 TPRM. Discussions were held with DEA and executing agencies. DEA strongly endorsed the concept of monitoring project outputs. The sector result framework (SRF) was introduced and indicators identified for outcome and outputs. A revised briefing sheet format incorporating the design and monitoring framework was introduced at the October 2008 TPRM. Discussions were held with all the stakeholders based on the revised briefing sheet format and suggestions were incorporated.
Adoption	The SRF and revised briefing sheet were adopted as tools for result-based project monitoring in the TPRM held in November 2008.
HOW THE INTERVENTION WORKS	
<p>The earlier monitoring system had some constraints and was more focused on input-based monitoring. Since November 2008, the revised structure that is being followed has strengthened the review of portfolio performance in the following manner (Table E3.4.1):</p>	
<ul style="list-style-type: none"> • Enables establishment of quantifiable output and outcome targets • Enables monitoring of project activities and inputs • Demonstrates development results 	<ul style="list-style-type: none"> • Enables monitoring for achievements of outcomes and outputs • Improves managing development results • Emphasizes implementation and sustainability issues

Table E3.4.1: The Revised Briefing Sheet Format

Design	Project Description Loan Milestones Loan Financial Progress			
Impact	Project Impact			
Outcome	Status of Project Outcomes			
	Indicators	Target	Baseline	Achievement
Output	Status of Project Outputs			
	Outputs	Target		Achievement
Activities /Inputs	Status of Project Activities and Inputs			

Design Summary	Performance Targets and Indicators	Data Sources and Monitoring Mechanism	Assumptions and Risks
Impact			
Outcome			
Output			
Activities and Milestones			Inputs

RESULTS

- Enabled ADB to better demonstrate its support to India's development through quantified outputs and outcomes
- Project authorities (implementing/ executing bodies) generally more attuned to reform and sustainability issues
- SRF has enabled highlighting of sector-specific issues in implementation and sustainability
- Resulted in improved sustainability and viability of projects as well as taken forward the reform agenda
- Revised project briefing sheet has contributed to improved adherence to policy covenants

ILLUSTRATION

As illustration, two projects executed by Kolkata Municipal Corporation (KMC) are summarized in Table E3.4.2 and Table E3.4.3.

Table E3.4.2: Loan 1813: Kolkata Environmental Improvement Project; Loan 2293: Kolkata Environmental Improvement Project (Supplementary); Executing Agency: Kolkata Municipal Corporation (KMC)

Outcome	Indicators	Targets	Baseline Data	Achieved as of				
				30 Jun 09	31 Dec 09	30 Apr 10	30 Sep 10	28 Feb 11
Better access to sanitation facilities in Kolkata	Population with improved sewerage and drainage (million)	1.4	0.2	0.8	0.94	1.0	1.1	1.15
	Population with improved solid waste management (million)	5.0	3.5	4.66	5.0	5.0	5.0	5.0
	Slum population with improved basic services (million)	0.25	Negligible	0.3	0.3	0.3	0.3	0.3

Table E3.4.3: Physical Progress of Components

Physical Outputs	Target	Achieved as of				
		30 Jun 09	31 Dec 09	30 Apr 10	30 Sep 10	28 Feb 11
Improved sewerage and drainage network in outer areas of Kolkata						
(i) New sewerage and drainage network (km)	378	264	270	294	303	321
(Progress in %)	100%	70%	71%	78%	80%	85%
(ii) Construction of pumping stations (progress in %)	100%	52%	65%	70%	75%	80%
New pumping stations	20	7	7	7	7	8
Rehabilitation	22	9	10	12	16	17

EXHIBIT 3.5: EARLY WARNING SYSTEM BASED ON SHORT-TERM ASSESSMENT OF PROJECT IMPLEMENTATION PERFORMANCE

BACKGROUND

The standard system of monitoring project performance by ADB assesses project outcomes, outputs, and implementation progress, apart from being able to classify projects 'at risk' that need to be watched closely. Although robust and extensive, the project performance report (PPR) system has limitations in pre-empting problems in project implementation over the short term. With increase in the number of projects financed by ADB since 2003, there was increasing risk of greater number of implementation issues requiring resolution at the same time, potentially diverting focus from larger matters such as reforms, sector policy, and so on. To prevent a large number of simultaneous implementation issues, an early warning project rating system that could identify potential projects more likely to face implementation issues was proposed during the TPRM in early 2010. This implied a rapid assessment system that would provide early warning signs and identify projects 'needing close attention' even though they were not classified 'at risk' in PPR.

The new early warning project rating system based on the short-term project performance deployed by ADB's India Resident Mission since TPRM in June 2010 follows a color-coded model that provides a quick summary implementation status of a project, without being overly sensitive to small issues, focusing on the monitoring of project implementation performance over shorter periods of time. This system allows:

- i. a project to be objectively monitored over a short period of time using a pre-determined set of indicators that allow for less discretion for interpretation,
- ii. short-term monitoring results to be grouped in order to track the implementation progress of a project, and
- iii. separation of long-term implementation monitoring from short-term monitoring, making it easier to quickly review a large number of projects objectively within a short period.

BEFORE THE INTERVENTION

CONDITIONS THAT NECESSITATED THE INTERVENTION

- Increasing size of portfolio with growing number of projects
- Inadequate attention to implementation bottlenecks of individual projects and limited focus on solutions due to less time and large number of projects. No systematic methodology to assess short-term performance and provide warning signs

UNDERLYING FACTORS

- ADB's standard methodology for review of project performance encompasses a monitoring framework based on comprehensive assessment, and does not provide early warning signs in implementation
- Possibility of discretionary interpretation by respective project implementation officers.

APPROACH TAKEN

DEVELOP REVIEW MECHANISM THAT ENABLES RAPID ASSESSMENT OF PROJECT BASED ON SHORT-TERM IMPLEMENTATION PERFORMANCE

- Rates implementation performance of projects on pre-defined parameters covering key aspects of implementation
- Quantitative parameters for easy computation and accurate rating
- Allows rapid assessment of performance of multiple projects in a short span of time
- Identifies the implementation bottlenecks clearly.

ELEMENTS OF EARLY WARNING PROJECT ASSESSMENT SYSTEM

- Grouping of projects into start-up phase and under implementation phase and separate rating parameters for each group
- Overall color-coded rating of projects based on total score linking project performance to sector/state/national performance

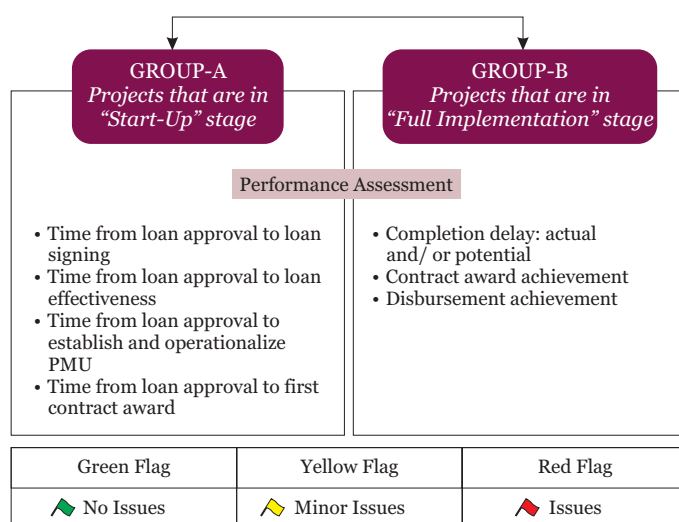
HOW THE PRODUCT WAS DEVELOPED

Inception	Introduced by ADB's India Resident Mission at the June 2010 TPRM to all stakeholders, the rating mechanism was explained and discussion initiated on the adoption of color-coded rating of projects to serve as a short-term early warning system. The concept was well received by all stakeholders, viz. DEA and executing agencies.
Incorporation	Became an integral part of the review system as the rating mechanism was incorporated in sector review and in project reviews. Led to the classification of 10 projects as red flag projects in the October 2010 TPRM. The faltering projects that were assigned a red flag were earmarked for special monitoring at the review meeting.

HOW THE INTERVENTION WORKS

PERFORMANCE ASSESSMENT SYSTEM

Figure E3.5.1: Grouping the Projects



- Both Group A (under start-up stage) and Group B (under full implementation stage) projects are assessed for each parameter
- Depending upon the time taken to fulfill each parameter, flags are awarded to each project (Figure E3.5.2)
- Flags are assigned from 0 to 4 for each performance parameter
- A negative bonus flag each is awarded to projects that performed better this year compared to the previous years.
- If a project earned less than 4 flags, it is assigned a green flag.
- Projects earning between 4 and 7 flags are assigned a yellow flag.
- Projects with 8 or more flags are assigned a red flag.

Figure E3.5.2: Awarding Flags by Time Taken for Each Parameter

0-3 flags	4-7 flags	≥8 flags
No. of flags determine project color rating		

- Enables quick and accurate identification of projects status
- Links project performance to sector/state/agency performance
- Identifies the stages where the projects are facing maximum problems
- Focuses attention on areas where improvement is required

RESULTS

- Streamlined the quick assessment of project performance by capturing short-term movements in implementation performance and focusing attention on those projects which are facing major issues in meeting the short-term implementation targets;
- Functioned as an early warning system, enabling advance corrective actions to prevent projects from deteriorating further and resolve major bottlenecks in a timely manner.
- Provided systematic methodology for identification of slow performing projects, independent of reports sent in by executing agencies
- Provided a fair idea of project implementation performance with respect to a sector, state or a particular agency.

ILLUSTRATION – PROGRESS IN FINANCE SECTOR AS ON APRIL 2011

Two tables illustrating progress in the Finance Sector by April 2011 have been provided below (Table E3.5.1 and Table E3.5.2)

Table E3.5.1: 2010 Performance: Urban Sector (for Projects in Start-up Phase)

A- Projects in Start-up Stage							
SN	Projects	Approval to Signing	Approval to Effectiveness	Approval to Establish PMU	Approval to First Contract	Score/ Flag	Last Flag
1	2578-South Asia Tourism	3	3	0	4	10	
2	2660-NCRPB	0	0	0	1	1	
3	2676-Infra Dev for Tourism	1	0	0	1	2	New
4	2725-Rajasthan Urban-Prj 3	0	0	0	0	0	New

Table E3.5.2: 2010 Performance: Urban Sector (for Projects Under Full Implementation)

B- Projects Under Full-Implementation							
SN	Projects	Completion delay	Contract Award against Projection	Disbursement against Projection	Audited Project Accounts	Score/ Flag	Last Flag
1	1813-Calcutta Environmental	4	1	0	0	5	
2	2293-Kolkata Envir-Suppl.	4	0	0	0	4	
3	2046-MP Urban	4	0	1	0	5	
4	2456-MP Urban-Suppl.	4	0	4	0	8	
5	2151-J&K Multisector	4	2	2	0	8	
6	2331-J&K Urban	4	0	2	0	6	
7	2226-Kerala Urban	4	4	4	0	12	
8	2312-North Karnataka PFR 1	4	0	0	0	4	
9	2638-North Karnataka PFR 2	0	0	0	0	0	
10	2366-Rajasthan Urban PFR 1	0	0	0	0	0	
11	2506-Rajasthan Urban PFR 2	0	0	0	0	0	
12	2410-Uttaranchal Urban PFR 1	4	0	1	0	5	
13	2528-NERCCDIP PFR 1	0	0	0	0	0	

EXHIBIT 3.6: ADB–DEA JOINT FIELD VISITS AT STATE AND PROJECT LEVELS

BACKGROUND

ADB employs a stringent mechanism of portfolio monitoring to ensure timely implementation of projects within budget to enhance the effectiveness of development assistance. A number of project review missions are conducted by ADB as part of its regular monitoring and review process to provide regular reports on the progress of the project based on results with respect to a certain monitoring framework and the expert advice of the mission team (including sector-specific specialists) on interpreting the results. However, in certain cases, projects may encounter complicated issues that remain unresolved across a number of mission visits. In such an event, ADB seeks recourse through a joint field visit with DEA, i.e., the borrower. The joint field visits are generally conducted at state level to cover all slow moving projects within a particular state. ADB and DEA officials jointly review the progress of the project, discuss major implementation issues with the nodal officer and senior administrative officials of the state government and agree on an action-plan to resolve those issues in a time-bound manner. ADB–DEA joint field visits have helped in resolving critical implementation issues and accelerating the progress of projects.

BEFORE THE INTERVENTION

CONDITIONS THAT NECESSITATED THE INTERVENTION

- Repeated instances of slow progress, issues that appear to persist over successive review missions and TPRMs
- Similar issues appearing across a number of projects within the same state, delaying all the projects
- Other unresolved issues such as slow decision making by the executing agencies or limited progress on statutory clearances with respect to social and environmental safeguards, right-of-way etc.

UNDERLYING CAUSES

- Factors that appear to be beyond the control of the executing agencies, but cause delays in project implementation
- Factors that were caused by divergent policy or regulatory issues at state and central government level, which were not factored in at the time of project preparation;
- Factors that were eventually confined to inadequate capacity of executing agencies or operational issues.

APPROACH TAKEN

- Joint field visits were conducted by DEA and ADB officials to the site location to review the project progress, identify bottlenecks and provide workable solutions to resolve them.
- Consultations were held between the executing agencies, secretaries of state line ministries and/or chief secretary of the concerned state, ADB and the DEA officials to speed up project implementation;
- If required, discussions with all the stakeholders are also carried out to understand the problem and ground realities and provide an effective and efficient solution;
- After joint field visit, a formal report including action-plan is circulated to all concerned for compliance.

HOW THE PRODUCT WAS DEVELOPED

- | | |
|---|---|
| <ul style="list-style-type: none"> • Inception | <ul style="list-style-type: none"> • DEA proposed to conduct field visits to problematic projects in the TPRM held in April 2008 and requested ADB to select states where project performance is slow. |
|---|---|

<ul style="list-style-type: none"> • Development 	<ul style="list-style-type: none"> • DEA took a decision that a joint team of ADB and DEA officials will review slow moving projects through field inspections and interaction with executing agencies, state nodal officer and senior state government officials to expedite the project implementation.
RESULTS	
<ul style="list-style-type: none"> • Joint field visits have significantly improved implementation performance of slow moving projects at state level and have facilitated strict adherence to the action-plans evolved during TPRMs; • Joint field visits have facilitated stronger project management and helped executing agencies in resolution of implementation issues that were beyond their control • Joint field visits have built strong partnership between DEA, ADB, and executing agencies. 	JOINT FIELD VISITS CONDUCTED <ul style="list-style-type: none"> • In 2009, ADB-DEA joint field visits conducted for projects in Chhattisgarh and Karnataka states. • In 2010, ADB-DEA joint field visits conducted for projects in Uttarakhand state. • In 2011, ADB-DEA joint field visits are proposed for North-Eastern states, Karnataka, Uttarakhand etc.

Implementation of Reforms

In the initial years, given the lack of adequate infrastructure assets, the thrust of ADB's Country Partnership Strategy was on timely and within-cost creation of assets. The trend continued in the early 1990s when economic liberalization resulted in the need for high quality infrastructure assets. However, over time, it was realized that the key to fostering economic development and promoting investment was to link the creation of infrastructure assets to a working and sustainable 'service' that would be accessible to all sections of society and would remain sustainable in terms of the environment and financial resources used by it.

This, in turn, would imply several paradigm shifts in public policies, notably:

- Capitalizing upon the possibility of private sector participation in sectors so far deemed to be within the government domain
- A common, independent, and neutral regulatory regime to balance the interests of the investors and consumers in line with the principles of a free market
- The adoption of technology and processes that assure both quality and quantity of the services offered, and systems that ensure sustainability of 'services' as a viable business, without sacrificing the public welfare perspective, including upkeep of social and environmental safeguards.

These concerns led to a number of initiatives as part of the loan covenants to ensure that the requisite technical, legal, and other regulatory systems were in place for sustainability of assets. A key initiative in this direction was the adoption of internationally accepted FIDIC-based procurement procedures for ADB-financed

projects. Unlike conventional contracts, allocation of risk between employer and the contractors in FIDIC-based contracts is more uniform, resulting in reasonable bids.

A second important issue is adherence to environmental and social safeguards during implementation of projects. Many infrastructure projects naturally cause large-scale displacement of people, and in some cases, areas of environmental or ecological significance, viz. forests, natural resource repositories (water bodies), flora, and fauna, are also affected. Further, since many basic services are associated with basic human rights, e.g., water, sanitation, etc., it is necessary to introduce provisions to ensure that the projects comply with environmental and social safeguards so that these services do not turn into pure economic goods that could only be purchased for a price.

Government of India has constituted a series of safeguard measures, which apply to projects of a certain nature, size and/or location. ADB-financed projects rely on an appropriate set of measures for such situations as part of the involuntary resettlement safeguards and environmental due-diligence on projects. The application of these safeguards has helped many infrastructure projects to balance project viability with environmental and social sustainability.

Over time it was generally observed that the executing agencies did not adhere strictly to follow up of covenanted safeguards. Many processes associated with seeking statutory clearances are time consuming. Owing to this, a number of projects are started off with 'in-principle' clearance, with the express understanding that appropriate information required to grant clearances to such projects would be furnished in due course. However, during implementation, some of the activities remain pending and are instrumental in stalling or holding up the project on account of non-fulfillment of such

obligations. To improve such compliances by executing agencies a number of these safeguards were mainstreamed into project administration and monitoring systems. These include environmental assessment of project sites, gathering of information pertaining to environment and socio-economic data for affected persons, and quantifying such safeguards into project outputs and/or activities. An example of this can be seen in the Rural Roads Sector-I Project covering Chhattisgarh and Madhya Pradesh, which prepared a highly developed entitlement matrix for compensation to land owners affected by the project.

The third key aspect of the reform agenda is to ensure that the institutions that own infrastructure assets and are mandated

with the responsibility of using them to deliver sustainable service, have adequate institutional capacity to do so. A number of studies conducted on service providing agencies have highlighted the issue of inadequate institutional capacity to carry out operation and maintenance of the infrastructure assets in a viable manner. The focus of ADB operations, therefore, has been to carry out certain structural and functional changes within the ambit of the executing agencies so that the infrastructure assets would serve their full economic potential. The key interventions often include PPP/ PSP arrangements, benchmarking of performance standards, adoption of newer techniques and principles of design and adopting additional safeguards functions such as road safety, environment, social



Road Construction: MP State Road Project

development, and audit, which were not previously a part of such agencies.

TOOLS AND INTERVENTIONS

Institutional Strengthening

ADB, in tandem with Government of India incorporated a reform agenda into its assistance programs, which *inter alia* sought to strengthen the institutions engaged in development projects and improve their performance as an organization. The key focus of the reform agenda is to create an enabling legal framework, improve business processes, strengthen organizational structure, increase revenues, and enhance accountability and augment planning and execution potential of executing agencies. The impact of institutional strengthening on portfolio performance is presented in Exhibit 3.7.

PPP/PSP as a Supplementary Channel for Delivery

The Government of India has been focusing on developing several enabling tools and activities to spur private sector investments into the country through PPP mode. These steps are vital not only to catalyse investments towards development of new infrastructure but also for efficient operation and maintenance of assets over their lifetime, ensuring focus on service delivery. Since 2007, ADB has been assisting Government of India in its efforts to improve the PPP enabling environment. These joint efforts are co-coordinated seamlessly in the 'Government of India-ADB PPP Initiative: Mainstreaming PPPs in India' under ADB-assisted TA 4890-IND, with the goal of

mitigating challenges in capacity building, skill institutionalization, sector responses, developing project pipelines, and catalysing funds, through a series of TA programs developed to address the evolving needs of the PPP enabling environment. The approach adopted for inclusion of PPP /PSP is presented in Exhibit 3.8.

Compliance with Statutory Environmental Requirements

ADB as a development institution has a strong commitment towards ensuring compliance with developing member countries' legal framework for safeguards in project implementation. Projects in India are governed by multiple laws, guidelines, standards, international treaties, and policies at the Union, state and local government levels. The various stakeholders find it difficult to go through these regulations to ensure compliance with such safeguards. ADB has sought to develop the tools and mechanisms through which compliance with safeguards can be improved and monitored effectively. The impact of improvement in compliance with Government of India's statutory environmental requirements is presented in Exhibit 3.9.

ADB has initiated several efforts for implementation of reforms through institutional strengthening to build the ownership of lifecycle of projects; mainstreaming PPP/PSP in projects; and improving compliance with Government of India's statutory environmental requirements. These efforts have resulted in better compliance of executing agencies and state governments with regulatory and policy requirements, and to strengthened sector-level reforms through improved project design/implementation plans.

EXHIBIT 3.7: INSTITUTIONAL STRENGTHENING

BACKGROUND

In the course of development work, both ADB and Government of India realized that their endeavors were being hampered by limited capacity of the implementing agencies in terms of handling large scale infrastructure projects. The primary reasons behind this institutional capacity deficit were lack of prior experience, limited capacity of human resources, archaic business processes, and multiplicity of agencies. All these issues resulted in delays in implementation of projects, inadequate operation and maintenance measures, poor sustainability of assets and lack of economic and financial viability.

To overcome these hurdles, ADB, in tandem with Government of India, incorporated a reform agenda in its assistance program, which inter alia sought to strengthen the institutions engaged in development projects and improve their performance as an organization. The key focus of the reform agenda has been to augment planning and execution potential, improve organizational processes and structures, increase revenues, enhance accountability measures, and create an enabling legal framework. After due deliberations at various TPRMs in 2008, portfolio performance reviews emphasized implementation of the reform agenda together with the concept of result-focused project implementation. Sustained efforts and better monitoring of reform agenda have reflected in reduced project implementation time and greater sustainability of created assets.



Office of Madhya Pradesh Road Development Corporation at Bhopal

BEFORE THE INTERVENTION

SYMPTOMS

- Low institutional capacity for large-scale infrastructure development and management;
- Inadequate staffing and frequent changes of leadership in PMU/PIUs
- Inadequate understanding of safeguards issues by executing agencies and responsible state agencies such as forest department, state pollution control boards etc
- Inadequate understanding of executing agencies on life cycle ownership and sustainability of assets created under projects

TYPICAL ISSUES MANIFESTING AS SYMPTOMS

- Inefficiencies in project execution, leading to delays
- Absence of long-term vision for planning, implementation, and maintenance aspects of projects
- Involvement of multiple agencies as well as lack of clarity in their responsibilities such as special purpose agencies (SPVs) and line agencies
- Weak financial capacity/collection efficiency of urban local bodies and inadequate generation of revenues

APPROACH TAKEN

REFORM AGENDA: MULTI-PRONGED INSTITUTIONAL STRENGTHENING STRATEGY INCORPORATING POLICY AND REGULATORY FRAMEWORK

- Impress upon states and executing agencies, the need for reform
- Enhancing organizational capacity of executing agencies/implementing agencies
- Enhancing financial capability and accountability of executing agencies/implementing agencies
- Promote enabling legislative framework and function in tandem with Government of India initiatives such as Jawaharlal National Urban Renewal Mission (JNNURM), PMGSY etc

ACTION PLAN FOR INSTITUTIONAL STRENGTHENING

- Adequate implementation of policy components of the project
- Include in policy covenant aspects relating to organizational structure and staffing and rationalization of tariffs
- Provide TA grants to executing agencies for enhancing their institutional capacity in project planning, implementation and maintenance, improving business processes, developing capability of human resource and strengthening quality assurance.

REFORM AGENDA²

Enabling legal framework	Organizational reforms
Revenue enhancement	Strengthening planning efficiency

HOW THE PRODUCT WAS DEVELOPED

Inception	The need for strengthening institutions such as ULBs was articulated at the September 2007 TPRM; a decision was taken to strengthen institutional capacity through reform initiatives, in sync with Government of India measures.
Growth	As the focus of portfolio performance review moved from input orientation to output orientation, discussions at TPRMs revealed that the compliance status for reform agenda remained weak. There was general agreement amongst project-level stakeholders on the need for greater monitoring of reform agenda implementation.
	Post November 2008, the revised briefing sheet incorporated implementation progress of the reform agenda as a critical parameter of outcome-based performance review of the projects.

¹ See Figure E3.7.1

HOW THE INTERVENTION WORKS

REFORM AGENDA

Enabling Legal Framework

- Financial strengthening of the entity
- Revenue reforms
- Increased user charge coverage

Organizational Reforms

- Adequate and trained staff
- Accrual-based double entry accounting system
- Revenue enhancement measures
- Improved collection efficiency
- Structural reorganization
- Improved organizational infrastructure
- Streamlined business processes
- Corporate governance measures

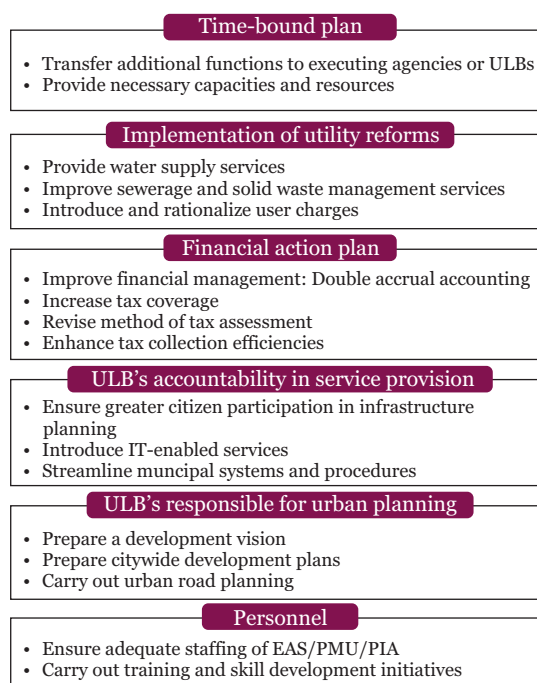
Strengthening Planning Efficiency

- Vision formulation
- Development plans
- Citizen participation in planning
- Consultant terms of reference to focus on future planning

Stringent Monitoring

- Greater focus on reform agenda as part of performance review
- Effective monitoring for timely implementation
- Review of anticipated outputs
- Review of sustainability and institutional capacity
- Review of Operation and Maintenance of created assets

Figure E3.7.1: Illustration of Reform Agenda for Urban Sector Institutional Strengthening



RESULTS

- Improved ability of ULBs and executing agencies to take the ownership of entire life cycle of the projects;
- Improved post-execution viability of the project through enhanced revenues
- Augmented sustainability of created assets through improved operation and maintenance measures
- Improved organizational capability and infrastructure of ULBs and executing agencies to undertake planned development

SPECIAL PURPOSE VEHICLES FOR DEVELOPING AND OPERATING ASSET

Creation of special purpose vehicles (SPVs) has provided a dedicated channel for project planning, implementation and long-term sustainability of assets. An example of such an SPV in the state road sector is Madhya Pradesh Road Development Corporation (MPRDC) which has been created under an ADB-assisted project. MPRDC has been designated as the state highway authority under the State Act. Entities created in the urban development sector include the Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), Rajasthan Urban Infrastructure Development Project (RUIDP), and the Economic Reconstruction Agency (ERA). These are examples of SPVs, which later became the nodal agencies for developing urban infrastructure in their respective states.

INTERNALIZING PPP AS A NORMATIVE MODE OF SERVICE DELIVERY

Better developed and streamlined guidelines that would help include model documents for PPPs, providing more resources to states and sectors on general matters such as use of transaction advisors for developing financial models, setting up of fund pools, tools (such as funds), and allowing states and local governments to undertake actual implementation of PPP projects.

EXHIBIT 3.8: MAINSTREAMING PUBLIC-PRIVATE PARTNERSHIPS IN INDIA

BACKGROUND

Though ADB has been supporting the development of quality infrastructure in India through financial assistance to publicly owned executing/implementing agencies, it has been realized in the last three national plans that public investments (whether direct or through servicing of debt) alone are not adequate to meet the growing need for services in energy, water, municipal services, and transport sector. Successive studies and deliberations have tried to understand the economic and social models associated with services emanating from these sectors. These studies have generally recommended:

- Adoption of structured business approaches in providing services that would lead to their self sustainability
- Separation of the 'authority' from the 'executive' or the 'service provider', allowing the government to remain as a neutral, public representative and a facilitator towards the development of 'fair markets' for infrastructure and services
- Fostering a competitive environment balanced between service providers and consumers, thereby opening the ambit of service provision to the private sector.

This has led to several instances where public policy and regulation has been amended to facilitate private sector participation, often through PPP arrangements.

ADB's assistance for infrastructure development in India through its sovereign lending operations has attempted to focus and capitalize on these findings and leverage resources from private sector participation. To this end, ADB has been actively promoting the use of PPP arrangements in several of its infrastructure projects. These arrangements assist the executing agencies to raise supplemental fiscal, technical, and managerial resources for creation and long-term sustainability of infrastructure assets, particularly for projects that are commercially bankable and can be supported through commercial lending, and also generate a reasonable return on capital employed by the private investors. This, in turn, allows the lending assistance of ADB to cover more components where normal commercial lending would not be lucrative or would not be able to generate a reasonable return on capital employed by the private investors.

BEFORE THE INTERVENTION

CONDITIONS THAT NECESSITATED THE INTERVENTION

- Inadequate public funding to meet the increasing need for physical infrastructure within the required time.
- Development of infrastructure was seen more as a sustainable 'service' provision over a long period of time, rather than 'creation of assets' and 'operating of assets'. Public entities have traditionally focused on creation of assets as opposed to their sustained operation.
- Most utilities being provided by publicly owned entities, often with the same set of skills and capacities which remain constant over long periods of time, as there is no compulsion to evolve on account of potential competition

FACTORS THAT CONTRIBUTED TO TAKING UP THE INTERVENTION

- Realization of the need for 'opening out' the role of service provision to greater number of investors with possibly better suited systems for high quality service delivery, thereby offering more choices to the consumer;
- Emerging public policies emphasized on government's role being changed from actual service provision to being able to facilitate and foster a 'balanced market' between consumers and service providers;

<ul style="list-style-type: none"> Publicly owned entities do not achieve the standard service level benchmarks and often show little interest to improve service levels on account of lack of incentives. Tariffs and user charges often not oriented towards market or business needs, but based on socio-political considerations, which affects sustainability of service provision. Some of the complex infrastructure projects needed skills, experience, and capabilities which are not available with publicly owned entities 	<ul style="list-style-type: none"> Several infrastructure assets and services found to be financially viable; ‘obligations’ (services to be offered by the provider to the public at large) appearing generally balanced against ‘concessions’ (opportunities offered to the provider for earning revenues that offer a reasonable return on capital employed) for a certain number of years.
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APPROACH TAKEN

PRE-REQUISITES TO FACILITATE PRIVATE SECTOR PARTICIPATION, A ‘BUSINESS-ORIENTED’ APPROACH

- Change legal framework to position independent regulators under the ambit of the government, where ever necessary;
- Facilitate private sector participation in a particular sector, including the modalities of entry, incorporation, operations (what, how, and where to operate), and exit (how long should such private party remain involved in service provision)
- Set out common rules, regulations, and standards of service, including setting of tariff benchmarks and identifying ‘rights-based’ issues (services which are to be provided as a ‘right’ and not as an economic good)
- Establish a proper mechanism for grievance redressal, appeal and ombudsman
- Set out a mechanism for accounting for private investment in public infrastructure and public accountability of such investment

KEY FACTORS FOR CONSIDERING PRIVATE SECTOR PARTICIPATION IN A PROJECT

- Is a project or sub-project (or any part thereof) conducive to private sector participation (i.e., commercially viable)?
- What should be the modality for private sector participation—through partnership (PPP, for natural monopolies) or through licensed entry supporting multiple private sector partners (e.g., telecom)?
- What should be the safeguards, rights, privileges, and obligations to be followed by parties—a private party as well as the government—in such an arrangement?
- What should be the suitable concession offered to the private party against discharge of the obligations?

ADB’S TWO-PRONGED APPROACH FOR CATALYSING PRIVATE SECTOR PARTICIPATION

TECHNICAL ASSISTANCE ON MAINSTREAMING PPPs IN INDIA

A comprehensive and pioneering program for enabling PPPs began in 2007 as a joint effort by ADB and Government of India (through DEA).

- To attract fresh funds into a particular sector, develop utility institutions’ efficiencies, for faster response to consumers
- To coordinate ADB assistance, establishment of a joint PPP implementation plan, (managed by PPP focal points, one each at ADB and DEA)
- For core implementation of PPP activities through PPP cells across several state governments, central line ministries, and the core PPP cell at DEA-ADB

SYSTEMATIC INTERNALIZATION OF PPP ARRANGEMENTS IN EXISTING PROJECTS AVAILING LENDING ASSISTANCE

- Sub-project identification using PPP arrangements
- PPP audit of components of existing projects or sub-projects in order to ‘hive-off’ components that could be taken up by private sector entrepreneurs through commercial lending and equity, without compromising on the economic or social obligations
- Development of pilot projects focused on preparing bankable project models in challenging sectors such as water supply

KEY ACTIVITIES UNDER THE TECHNICAL ASSISTANCE

- Development of specialized PPP cells across the country and support for the same
- Support for PPP financing intermediaries e.g., IIFCL
- Support for development of frameworks encouraging PPPs (national, state level, sector), in order to meet the reform pre-requisites
- Standardization of bidder selection and contract administration processes
- Support for the India Infrastructure Project Development Fund to identify and develop commercially bankable infrastructure projects
- Development of model documents for sectors and support for the same
- Knowledge workshops held across the country

- Dovetailing PPP with other sector-level reforms such as insistence on service-level benchmarks as covenants of concession agreement and rationalizing of user charges based on economic and financial sustainability considerations
- Equitable transfer of risk, rewards, and incentives factored in concession agreements facilitated by ADB
- Assisting executing agencies by extending lending facilities to meet their counterpart obligations in a PPP arrangement.

THE 'P-S-S-T' STRATEGY

Policy strengthening	Strong stakeholder capacities	Supply of long term funds	Trust amongst all stakeholders	
<ul style="list-style-type: none"> • Policy for private-domestic and foreign investment • Regulation and monitoring • Incentives for PPP • User charges policies • Viability support 	<ul style="list-style-type: none"> • Trust among all stakeholders • Local and central government capacities to contract with, and monitor PPPs • Good transaction advisory support • Good domestic contractors/operators 	<ul style="list-style-type: none"> • Long term funding to match long gestation infrastructure • Competitive and risk based • Strong domestic funding institutions with risk analysis ability 	<ul style="list-style-type: none"> • Awareness for all – consumers, private players • Transparency in process • Participatory processes 	<p>An ADB-devised framework for detailing the areas of improvement and strategy for enhancing stakeholder participation and commitment. It seeks to ensure ADB handholding of all the stakeholders in order to establish adequate mechanisms for PPP mainstreaming.</p>

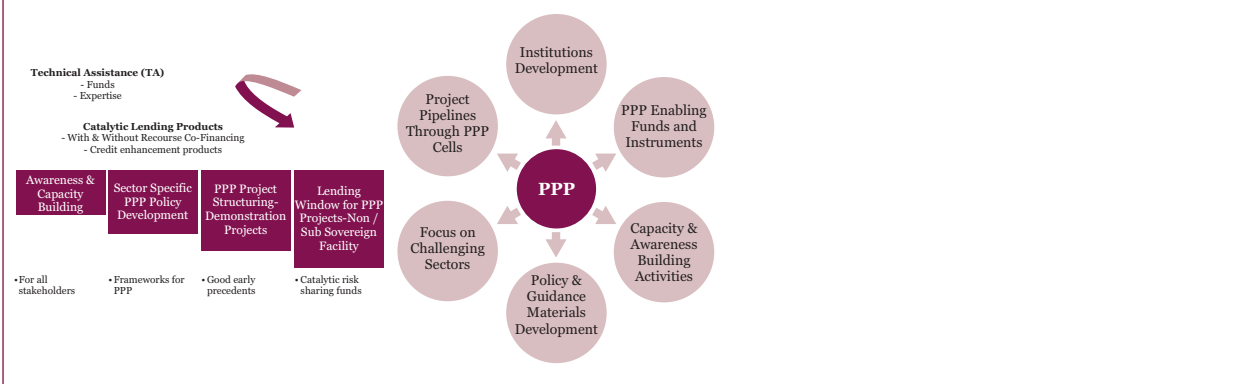
HOW THE PRODUCT WAS DEVELOPED

Inception	At the March 2007 TPRM, DEA recommended that all future urban sector projects should be subject to PPP audit to see what can be done through PPP. It also recommended that a part of the loan could be used for viability gap funding (VGF).
Incorporation	<p>Mainstreaming PPPs in India, as a comprehensive and pioneering program for enabling PPPs, commenced in 2007 as a joint effort by ADB and Government of India through DEA.</p> <p>At the July 2008 TPRM, ADB stated that assessing the possibility of PPP to piggyback public sector expenditure should be an integral part of all scoping missions. DEA stressed that every opportunity for PPP should be used to attract private sector participation in infrastructure development and its operation.</p>

HOW THE INTERVENTION WORKS

TA Mainstreaming PPPs at State Level (TA-IND-4890)	TA Mainstreaming PPPs at Central Line Ministries (TA-IND-4993)	TA PPP Pilot Projects Initiative (TA-IND-7152)	Several other Specific TAs on PPP Initiatives	TA for PPP Policy and Institutional Development
<ul style="list-style-type: none"> TA 4890-IND for \$5 million Approval date: 11 Dec 2006 PPP Cells being supported in 16 states Capacity Building, project preparation, policy development 	<ul style="list-style-type: none"> TA 4993-IND for \$2 million Approval date: 16 Nov 2007 PPP Cells being supported in 7 Central Line Ministries Sector Policy focus, capacity building, project preparation 	<ul style="list-style-type: none"> TA 7152-IND for \$2 million Approval date: 17 October 2008 Innovatively linked to IIPDF for an overall \$8.2 million impact Demonstration projects across sectors 	<ul style="list-style-type: none"> Initial assistance provided for PPP assessment Further assistance for capacity, policy, and projects development Much needed focus areas 	<ul style="list-style-type: none"> TA 7441-IND for \$1 million Approval Date: 11 Dec 2009 Standardization of policy guidance material Evolution of sector specific templates Institutions for managing PPP knowledge and monitoring oversight

Figure E3.8.1: ADB's Support to Government of India for Mainstreaming PPPs



RESULTS

CAPACITY BUILDING FOR PPP

- Experts at the PPP cells have led capacity building and institutionalization of PPP skills
- Training of officials on PPP rationale, policy, processes, modalities and preparation and structuring of projects
- 80 workshops held across the country, imparting training to 5,150 government officials
- 6 monthly PPP knowledge sharing roundtables between state PPP nodal officers
- Development of joint-regular training programs with local institutes such as Administrative Staff College of India (ASCI)
- Creation of management information systems for PPP projects
- Development/refinement of draft PPP policies for most state governments
- Standardization of PPP processes through development of PPP manuals for most states
- Development of state-level vision or planning documents for infrastructure and PPP development
- Assistance with development of project-specific PPP models for replication in each state government

DEVELOPING PPP PROJECTS PIPELINE IN INDIA

- A project pipeline of over 900 projects has been developed across the states
- The DEA PPP Cell and the States Central PPP Cells involved in conceptualization, structuring, submission for assistance and funding (VGF, IIPDF), appraisal and bid process management

LAUNCHING PILOT PROJECTS

- Led directly by ADB and DEA PPP focal points and assisted by the central PPP cell
- India Infrastructure Project Development Fund (IIPDF) created, combining ADB TA funds with Government of India's project development funds
- Develop the project from concept to bid process management under the close supervision of DEA and ADB PP focal points.
- Success in that the pipeline of pilot projects has already exceeded 25
- Direct ADB/DEA structuring for challenging sectors, ADB + IIPDF (25%/75%)
- Quick response modality; complete handholding of project, sponsors from concept to structuring to bid closure
- Expert transaction advisory teams in place with considerable experience
- Initial projects across key sectors such as water supply and sanitation, primary education, healthcare and urban transport

CATALYSING FUNDS

- Allocation of NSPL funds and IIFCL loan to water, and urban transport sectors
- Pimpri BRTS, Bangalore Metro, Maharashtra Urban, Hyderabad Water Project

EXHIBIT 3.9: IMPROVING STATUTORY COMPLIANCES

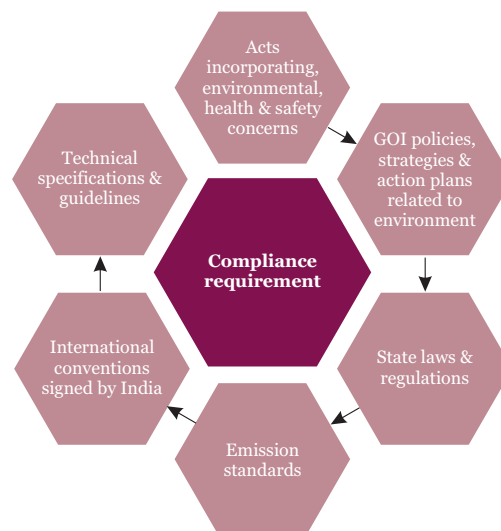
BACKGROUND

ADB, as a donor agency, has a strong commitment to member countries' legal framework in project implementation. Projects in India are governed by multiple laws, guidelines, standards and policies at the union, state and local government levels. This results in a lack of clarity and conflicting views about the rights, responsibilities, risks and rewards for different stakeholders.

To cite an instance, under Tsunami emergency assistance, the Pulicat bridge was identified as an important sub-project. During an enquiry by an ADB review mission, close investigation on the location determined that the project location was falling within a wildlife sanctuary. Therefore, various environmental statutory clearances became necessary before awarding the civil works contract. The first procurement had to be cancelled due to the expiry of bid validity. Statutory environmental clearances were finally obtained, and the civil works was awarded in the second round of procurement. However, the works could not be completed by the project closing date of October 30, 2009. Thus, the Tamil Nadu state government had to finance the remaining works. This case clearly shows the importance of obtaining timely statutory clearances during project preparation.

In the light of instances like this, ADB has sought to develop tools and mechanisms to improve, monitor and enforce compliance. The aim is to maximize the level of trust and confidence amongst all stakeholders to ensure that they comply with all obligations (Figure E3.9.1).

Figure E3.9.1: Framework of compliance requirements



BEFORE THE INTERVENTION

VARIOUS FACTORS OFTEN INHIBIT COMPLIANCE AND IMPLEMENTATION OF GOOD PRACTICE

These Include:

- Under-integration of these regulatory components into the implementation schedule of projects
- Lack of understanding and ineffective participation at key points in the decision-making process
- Low levels of monitoring that effectively feed back into decision-making
- Weak or non-existent legal resources, expertise and appeals mechanisms, particularly for negatively affected and vulnerable groups

TYPICAL CONSEQUENCES OF NON-COMPLIANCE

- Inordinate delay in project approvals and execution
- Shelving of project or sub-project
- Inadequate contractor performance
- Ineffective community participation
- Absence of ownership amongst stakeholders
- Entanglement of the project in legal quagmire, leading to delays
- Increase of project cost due to delays

APPROACH TAKEN

STRENGTHENING PRE-APPROVAL REVIEW PROCESSES AND MONITORING MECHANISMS

- Achieve applicable environmental standards and social objectives inherent as regulations
- Ensure compliance with applicable Government of India and state laws, regulations and standards
- Undertake monitoring, reporting, and undertaking corrective actions
- Develop and exercise mechanisms for effective supervision during implementation

ACTION-PLAN FOR IMPROVING COMPLIANCE

- Emphasis on regulatory approvals prior to loan sanction
- Providing TA to comply with regulatory requirements through expert support
- Carrying out necessary environmental assessment prior to project approval and continuing through project execution
- Compliance with MOEF procedure for environmental clearance for all projects
- Compliance with the resettlement and rehabilitation policy of Government of India for projects involving displacement of people
- Compliance with applicable Government of India and state laws and regulations governing tribal development for projects affecting indigenous/tribal people

HOW THE PRODUCT WAS DEVELOPED

Emphasis	Issue of compliance had consistently been a part of ADB strategy in project implementation. Renewed emphasis was needed in the light of increasing size of project portfolio. This was articulated at the April 2008 TPRM.
	In October 2008, revised briefing sheet incorporating section on compliance was introduced as portfolio review mechanism, thus providing much needed augmentation to compliance review mechanism
Steps Taken	The project readiness checklist issued by DEA in July 2008 captures all the requirements of environmental and social safeguards prior to loan approval.
	Review Missions focused on safeguards issues facilitated identification of shortcomings, developed corrective action-plans and sustained follow up for compliance.
	Project-specific capacity building programs focused on safeguards conducted for entire project staff including executing agency officials, consultants and contractors.

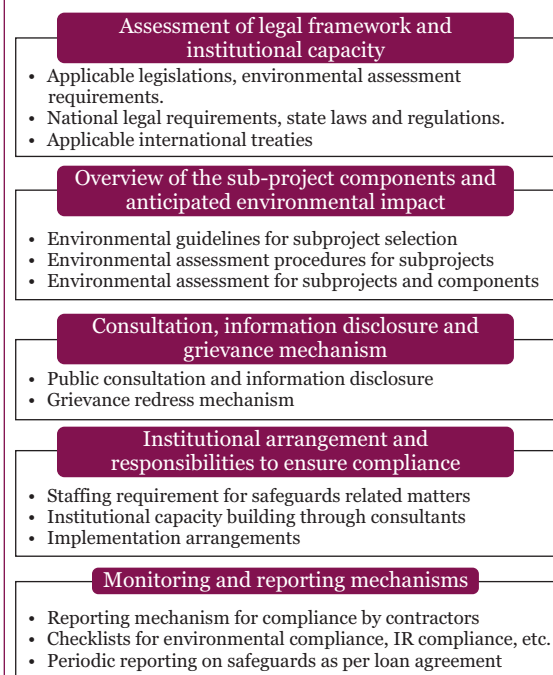
RESULTS

MEASURES TAKEN TO IMPROVE COMPLIANCE

- Under ADB projects, full and timely compliance with the regulatory requirements was made a pre-requisite for continued ADB financing
- Project was designed so as to minimize impact on environment and affected persons;
- The project proposals were to include environmental assessments
- Assistance was provided by experts to assess the environmental impact in order to submit appropriate reports
- Assistance was provided by consultants to prepare the Environment Management Plan (EMP) as per Ministry of Environment and Forest (MoEF)
- Support provided to executing agencies in implementing the EMP through financial and technical assistance
- Executing agency personnel and contractors were trained and sensitized to adhere to compliance requirement
- Pre-approval, execution and post-completion compliance monitoring framework was evolved and implemented
- Compliance status by executing agencies was monitored at multiple levels including TPRMs
- Non-compliance was taken seriously and in extreme cases assistance stopped till executing agencies improved compliance adherence
- Participatory approach favored the involvement of affected communities;
- Consultation with affected persons was made mandatory
- Use of clean technologies was encouraged
- All projects were reviewed and evaluated against Government of India and state laws, regulations, and standards on environment, health, safety, and physical cultural resources
- Constant review was carried out through internal mechanisms, through forums such as TPRM
- Improved compliance record was required prior to project approval
- Fewer projects were delayed due to lack of regulatory compliance
- Improved project designs were minimizing adverse impact on people and environment
- There was improved track record of projects on environmental compliance

For ADB assistance certain requirements have been made mandatory for the projects to improve compliance (see Figure E3.9.2).

Figure 3.9.2: Mandatory Requirements for ADB Assistance



Knowledge Management and Sharing of Best Practices

In addition to facilitating infrastructure development through financing operations and focusing on the sustainability of assets and services through institutional reforms, ADB also lays considerable emphasis on ensuring that the executing agencies cross-learn from each other and share best practices. These lessons are imbibed from their experiences through the implementation of infrastructure projects, and associated reforms. Further, ADB strives to ensure that a global body of knowledge, derived from its experience across all its member countries, is available to all executing

agencies across sectors. The knowledge management activities intends to:

- Sharpen the knowledge focus in project implementation and operations
- Build capacities of executing and implementing agencies
- Empower communities of practice
- Strengthen external knowledge partnerships
- Further enhance staff learning and skills development

As ADB operations are expanding to new states which have weak capacity and limited experience in implementing large scale projects, cross-learning and sharing of best practices among executing agencies play an important role in facilitating project implementation.



Discussion among executing agencies , TPRM Kovalam, 2006

TOOLS AND INTERVENTIONS

Capacity Building Programs

Capacity building programs have been the thrust of ADB operations to enhance the capacity of executing agencies to plan, implement, and manage projects in a timely and efficient manner. This set of initiatives has been targeted to address the capacity constraints of executing agencies in formulating and implementing projects on time and within the stipulated budget. In many cases, where executing agencies were assigned the responsibility of implementing projects financed by ADB, adherence to conventional systems of procurement, contract management, and project management often delayed project implementation.

Capacity development has become all the more important because ADB operations are expanding to newer states with inadequate capacity and limited experience in implementing large projects. ADB's India Resident Mission has taken several steps during 2008–10 to substantially enhance the capacity building programs for the staff of executing agencies. The calendar of capacity building programs for 2011 is in Annex 5. The impact of capacity building program on portfolio performance has been explained earlier in Exhibit 3.2 under 'project readiness'.

Cross-learning and Sharing of Best Practices

Many executing agencies have been able to develop field level practices optimally

suited to resolve issues at hand, allowing projects to make up for lost time by taking certain initiatives such as effective project planning, handling procurement and safeguards issues through pro-active actions, operation and maintenance arrangements, active participation of project stakeholders etc. ADB and DEA have encouraged replication of best practices adopted by an executing agency in a project under a given set of circumstances by other executing agencies. These knowledge management initiatives include soliciting presentations from executing agencies during TPRMs and capacity building programs for sharing their experiences and the best practices adopted by them and facilitating exposure visits of project officials from less experienced executing agencies to better performing projects and interacting with their officials to learn from their experiences in dealing with similar issues. The states which have been well versed with ADB procedures are also encouraged to share their experience during TPRM. The impact of the cross-learning and sharing of best practices has been presented in Exhibit 3.10.

ADB has made sustained efforts to develop a common repository and forum for sharing knowledge which can be utilized by all executing agencies and implementing agencies. In this regard, ADB's India Resident Mission has already taken an initiative to launch the DEA–ADB online portal that would have all knowledge products, training material and presentations on best practices readily available to all the executing agencies.

EXHIBIT 3.10: CROSS-LEARNING AND SHARING OF BEST PRACTICES AMONG EXECUTING AGENCIES

BACKGROUND

In several ADB-financed projects, a number of executing agencies have been able to identify, develop, and internalize a number of best practices highly suited to specific instances of having developed 'localized solutions' to critical issues faced during implementation. However, there seemed to be little or no interaction between officials and functionaries of executing agencies engaged in similar projects across multiple states, which is why localized best practices often stayed 'local'.

To ensure that executing agencies engaged in similar projects could use the same (or a modified version of the) localized solution within a similar set of circumstances, ADB has taken several initiatives to ensure that the learning from one executing agency is transferred to others. These knowledge management initiatives have essentially taken two forms:

- i. Cases where ADB solicits presentations from executing agencies during TPRM and capacity building programs highlighting the application of certain best practices conceived, adopted or internalized by them for the general consumption of all present executing agencies, and
- ii. Cases where ADB has organized a systematic and targeted learning for one or more executing agencies from the practices followed by another executing agency, e.g., through exposure visits within country or overseas visits.

These interventions have generally assisted in augmenting the general pool of best practices that are now available with executing agencies. However, there is need for setting up a knowledge repository and dissemination system for the same.



Urban Forum in Bangalore in January 2010



Presentation by Bihar Road Development Corporation in TPRM April 2011

BEFORE THE INTERVENTION

NEED FOR THE INTERVENTION

- Limited information sharing between various executing agencies
- No cross-learning amongst executing agencies
- Limited documentation prepared for sharing best practices of project implementation amongst various agencies
- Executing agencies and state government officials not familiar with ADB procedures
- Common issues encountered across projects and sectors such as shortage of good consultants, limited response from bidders during tendering etc.
- Initial project implementation delays in new or small states

ENCOURAGING FEEDBACK FROM EXECUTING AGENCIES

It was discussed at various forums how participants can better learn from each other and share their experiences in result-based project implementation. The various options considered that could be adopted were:

- DEA-ADB online portal
- Cross-learning amongst executing agencies
- Knowledge workshops/seminars

	<ul style="list-style-type: none"> • Capacity building training programs • Incentives <p>More than 50% of respondents agreed that the best medium to facilitate project implementation was cross-learning, as</p> <ul style="list-style-type: none"> • It offers practical solutions • It is less time consuming and more interactive • It makes implementation easier, if coupled with site visits • It strengthens the bond between executing agencies
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HOW THE INTERVENTION WORKS

<ul style="list-style-type: none"> • Consultations are held regularly with DEA, state governments and executing agencies to promote cross-learning • Less experienced executing agencies were encouraged to visit better performing projects and interact with their officials to learn from their experiences in dealing with similar issues. • A number of presentations were made by ADB and executing agencies during TPRMs and knowledge forums to underscore the need for sharing best practices and experiences, so that project implementation can be improved 	<ul style="list-style-type: none"> • ADB's continued handholding and close monitoring of projects, and cross-learning opportunities at various forums have helped strengthen the state's ownership of the project and the capabilities of executing agency staff. • ADB undertook a rigorous cross-sector analysis for various sectors that has enabled it to identify common issues, and strategies that could be replicated across sectors. The key learnings are shared with all executing agencies to facilitate cross learning amongst them and expedite project implementation
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HOW THE PRODUCT WAS DEVELOPED

Inception Phase	Since 2007, serious need was felt to encourage cross-learning between executing agencies and share their experiences to help them create practical solutions to problems they encounter in their projects.
Implementation Phase	At numerous knowledge forums, TPRM, and various capacity building programs, executing agencies have been asked to present the best practices and implementation approaches adopted by them in their projects in areas such as project planning, procurement, safeguards, contract management and other implementation aspects. To encourage cross-learning, both ongoing projects and future projects were taken up for discussion at each of the TPRMs and various agencies shared their experiences.
Ongoing Phase	Now, as a regular practice, at every TPRM some of the executing agencies are requested to share their experiences in project implementation, based on the approaches and best practices adopted by them. To improve the effectiveness of cross-learning, even field visits within the country and overseas are arranged to share their experiences and learn from each other.

BENEFITS OF CROSS-LEARNING AMONGST EXECUTING AGENCIES

- Executing agencies became pro-active and efficient in various aspects of project management
- Executing agencies are able to resolve issues and bottlenecks independently, with handholding support from ADB.
- Cross-learning opportunities encourage executing agencies from both ongoing and pipeline projects to learn from each other and promote team-building.
- Executing agencies have developed their capacities in planning and managing projects efficiently. Table E3.10.1 briefly summarizes the presentations made by various executing agencies on best practices adopted by them in TPRMs during 2007–11.

Table E3.10.1: Presentations by Executing Agencies on Best Practices

Year	States and Sectors which made presentations in various TPRMs
2007	Kerala (Urban), Tamil Nadu (Urban), M.P (Energy)
2008	MP (Urban, Transport and Energy) Jharkhand (Transport), Rajasthan (Urban), Tamil Nadu (Urban), Kerala (Urban)
2009	Assam (Urban), Chhattisgarh (Transport), Himachal Pradesh (Energy)
2010	Assam (Energy), Bihar (Transport), Himachal Pradesh (Energy), MP (Energy), Jharkhand (Transport), Karnataka (Urban)
2011	Assam (Energy), Bihar (Transport), MP (Transport), Rajasthan (Urban)

EXAMPLE: BEST PRACTICES SHARED DURING TPRM HELD IN APRIL 2011

During TPRM in April 2011, four executing agencies shared their experiences on best practices on project preparedness, preparation of master plans for state road sector, maintenance of rural roads and power sector reforms.

- Rajasthan Infrastructure Development Project (RUIDP) made presentation on “Advanced Preparedness” for the project, sharing their experience in making intensive project preparation at least 2 years in advance so that the contracts for civil works and consultancy are ready to be awarded at the time of loan signing to ensure timely implementation of project.
- Bihar State Road Development Corporation (BSRDC) conducted a presentation on the status of road network in Bihar. The state is in the process of preparing a State Road Master Plan for the selection and prioritization of future investment schemes in the road sector based on a rational approach.
- Madhya Pradesh Rural Road Development Authority (MPRRDA) presented a case study on how MP handles the rural road maintenance. The presentation discussed the challenges faced in road maintenance and ways to overcome them through proper budget allocation and supported by GIS and MIS web-based software for monitoring activities and expenditure of maintenance works.
- Assam State Electricity Board (ASEB) presented their experience in power sector reform under the earlier ADB-supported program loan, including unbundling of ASEB into Generation, Transmission and Distribution companies. The reform has brought positive changes such as reduction in transmission and distribution loss, increased cost recovery and reduction in average cost of supply.

FUTURE STEPS

- Innovative elements in projects and best practices adopted by executing agencies to be compiled and documented for broader disseminations through a ADB–DEA online portal freely accessible to all executing agencies, DEA and ADB.
- Regular visits to be encouraged between executing agencies to promote cross-learning and sharing of experiences
- Invite and encourage more executing agencies to attend sector-focused knowledge forums under TA and workshops on project implementation issues.

Impact Assessment and Lessons Learnt

While the preceding section has focused on the key interventions and best practices applied generally in projects across sectors, it is important to discuss how specific sectors have utilized these interventions and practices and learnt the lessons, and how the best practices employed in portfolio management across various sectors have yielded valuable lessons.

URBAN SECTOR

ADB operations in the urban sector have been targeted towards providing quality infrastructure and services to enable Indian cities to handle increased population pressures efficiently and equitably. In this context, apart from financing a number of urban infrastructure projects across a wide range of states, ADB operations have acted as a catalyst for furthering sectoral reforms and introducing good practices in a number of areas. Some lessons from ADB operations in the sector include:

Institution Building Opportunity

One of the biggest challenges of implementing large scale urban infrastructure projects in India has been lack of a nodal agency with capacities to design and execute complex urban projects. It is, therefore, recommended that states implementing new project create a Project Management Unit (PMU) at the outset.³ In the experience of ADB, a PMU is, in some cases, created as an SPV. Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), Rajasthan Urban Infrastructure Development Project

(RUIDP), and the Economic Reconstruction Agency (ERA) are examples of SPVs, which later became the nodal agencies for developing urban infrastructure in their respective states.

Strengthening PMUs

Fully staffed PMUs and complete involvement of project authorities from the very outset of project preparation are necessary for creating conditions of ownership and commitment to a project. Strong PMU involvement from the design stage onwards allows more locally rooted and systematic planning and better project design (for example, Rajasthan Urban Sector Development Investment Program (RUSDIP) and North Karnataka Urban Sector Development Investment Program (NKUSDIP)). Otherwise, it affects project planning, which sometimes leads to redesigning of the scope of projects during implementation (e.g. Karnataka Urban Development and Coastal Environmental Project).

Building Technical Capacity

To ensure quality and timely delivery of project benefits, it is essential to build the technical capacity of executing agencies through the creation of a core technical team, staffed with an appropriate mix of permanent employees and long-term consultants. At present, in most of the projects, PMUs are unable to take forceful charge of technical and project management issues due to their lack of knowledge and capacity. The personnel in PMUs are usually drawn from line departments, with little prior experience of project design and implementation. The learning process of project management begins anew with every project because PMUs are specific to each project and do not survive after the closure

³ In some cases, two sets of structures are put in place for planning and implementation purposes: A PMU for planning, designing, and managing the project; and a PIU for supervising civil works contracts.

of the project. Agencies such as KUIDFC and RUIDP, which have evolved as their respective states' nodal urban development agencies, do not have dedicated cadres, resulting in limited accumulation of institutional knowledge and opportunities for learning across projects.

State-wide Engineering Design Agencies

In the context of knowledge and capacity issues, the government may consider setting up an engineering design agency in each state and developing curriculum focusing on urban infrastructure in universities and other technical institutes as a long term strategy to address capacity issues.

Modern Data Systems

Setting up institutionalized systems for data collection, creation of maps, and management of data are pre-requisites for efficient project design. The failure to do so can delay implementation of projects significantly. For example, the implementation of ADB assisted Kolkata Environmental Improvement Project (KEIP), designed for sewerage, solid waste management, and drainage infrastructure; strengthening operation and maintenance systems and enhancing urban service delivery management of the Kolkata Municipal Corporation; and assistance for project management and implementation skills, was delayed by 3 years during the initial implementation stage, due to poor quality of data and information.

IT in Project Management

ADB's experience shows that modern information technology systems can make a significant difference in project management. For example, in the North

Karnataka Urban Sector Investment Program (NKUSDIP), use of IT enabled project management system and performance monitoring systems helped quick decision making and monitoring of project deliverables. Similarly, the use of electronic measurement books in KEIP has reduced the average time lag for processing of claims from three months to one week. This has ensured timely payments to contractors, improved bidders' confidence in the executing agency and resulted in low tender premiums, increased competition in subsequent bids, and timely execution of works.

Explore New Technologies

The use of new technologies, engineering practices, and materials can substantially improve progress of projects and ease implementation bottlenecks in urban areas. Examples include the use of micro-tunneling technology in congested areas of Kolkata and plastic pipe materials instead of concrete pipe in J&K. The use of these technologies has reduced the contract execution period and minimized discomfort to the residents and commuters in these cities.

Business Process Re-engineering and Municipal Reforms

'Nirmal Nagar', the municipal reform component of Karnataka Urban Development and Coastal Environment Improvement Project supported the computerization of basic municipal functions, introduction of fund based double entry accrual accounting system, and capacity building for improving transparency and accountability in 47 towns of Karnataka. These initiatives have helped increase property tax mobilization in most of the participating towns by about 25%. All ULBs have now set up websites and public

grievance cells which are operated involving NGOs. JNNURM, Government of India's flagship urban development program, which was launched subsequently, has a similar reform component.

Similarly, under KEIP, the Kolkata Municipal Corporation accounts that were in arrears from FY1992 to FY2001, were prepared and audited by the Comptroller and Auditor General of India (CAG) after a gap of 12 years. The Auditor General's recommendation of numerous measures to fill gaps did serve to improve the corporation's accounting practices. It is reported that the revenues almost doubled during the following 3 years, besides substantial cost reduction from effective utilization of cash resources to retire costly bank overdrafts

Sustainable Service Delivery

ADB's experience shows that sustainable service delivery should be emphasized in the design stage of projects. North Karnataka Urban Sector Development Investment Program (NKUSDIP), the proposed Uttarakhand urban subproject-2 and Bihar Urban Project focus on reducing non-revenue water, 100% water metering, energy saving, use of waste water for commercial purposes, and the introduction of a water operator for O&M. Similarly, under KUDCEMP, Mangalore City Corporation will sell treated waste water to a local SEZ under an innovative PPP model. This will not only help to conserve water but also reduce the O&M liability estimated at US\$ 4 million per year. Methane gas generated in the Delawas Sewage Treatment



Workshop on Road Safety, New Delhi, April 2011

Plant is being used to generate clean electricity for running the entire plant resulting in savings of US\$ 330,000 per annum for the Jaipur municipality.

GHG Mitigation and Carbon Financing

A recent review of ADB's urban portfolio in India indicates that urban waste management projects, i.e., sewerage and municipal solid waste (MSW) management projects have significant potential for mitigation of greenhouse gases (GHGs) and revenue generation through carbon financing.

To promote the clean development mechanism initiatives, ADB is providing technical and carbon marketing support to project developers of countries like India. ADB's Carbon Market Program (CMP) provides a range of support from project identification stage to upfront purchase of the carbon credits to the project developers. Solid waste management landfill sites at Alwar under RUSDIP and Gorai Landfill Closure and Gas Capture Project are some good examples wherein a portion of capital cost/ critical financing gap is covered by upfront carbon co-finance.

TRANSPORT SECTOR

Transport connects resources and markets, diversifies production, develops trade, and facilitates economic growth. ADB has assisted India's transport sector since the start of operations in 1987 with projects and TA in the roads, ports and railways subsectors. A major contribution of ADB has been in the formulation of State Road Master Plan in states such as Madhya Pradesh, Chhattisgarh, Sikkim, and Karnataka, where such plans did not exist. Some lessons from ADB operations in the sector include:

Creation of Special Purpose Vehicles

Several national and state agencies, for example, Indian Railways, MP state, Bihar state, etc. have created SPVs to fast-track the process of project implementation in the sector. ADB's experience shows that for an SPV to be successful, several factors need to be in place:

- SPVs must have a clearly defined role to avoid competition with traditional departments. For example, a state roads SPV could be made a highway authority for a particular class of state roads in order to avoid 'competition' with a traditional department
- SPVs need to be organizationally independent of traditional departments with an independent chain of decision-making. For example, state road development corporations should be reconstituted as companies with chief ministers as Chairmen instead of being intertwined with the parent department
- SPVs need to adopt effective and efficient procedures and processes without being encumbered with legacy departmental practices

Improving Efficiency of Existing Organizations

Several states have chosen not to set up an SPV, and instead, rely on existing agencies. ADB's experience shows that the key to improving their efficiency is to make incremental improvements that meet a demonstrated need in the department. This includes:

- Updating codes and manuals to reflect current best practices
- Training staff to improve technical proficiency in updated codes and manuals

- Institutionalizing training as a key departmental activity
- Institutionalizing planning as a technical activity

Improving Planning and Programming Efficiencies

The attainment of this objective depends crucially on the availability of accurate and timely data. The type of data needed can vary. For example, in a road authority, data on road, bridge, and traffic conditions are important while in a commercially oriented organization like Indian Railways, accounting data showing costs and revenues of the different services is also important. ADB's experience shows that the focus should be:

- To develop an effective, well-staffed planning and programming division within the organization

- To establish appropriate database with clear responsibilities for maintaining and updating the database within the planning division
- To develop transparent and pragmatic procedures for budgeting and programming based on objective data
- To provide adequate finance to implement the chosen programming strategy for asset sustainability

Advanced Techniques for O&M

ADB's experience shows that the inclusion of a full-fledged O&M component in all transport infrastructure projects, specifically roads projects, is essential for the sustainability of these projects. Furthermore, the challenges faced in road maintenance can be overcome by using advanced technology solutions like GIS and MIS web-based softwares for monitoring



Himachal Clean Energy Project



Breakwater in Kerala

activities and expenditure of maintenance works and by imparting proper training on O&M aspects to the staff of line agencies. A separate source of funding may be identified for the said purpose, supported by either private sector participation or allocation of funds under state budget.

Integrated Approach to Multi-modal Transport Infrastructure Planning and Implementation Systems

ADB's experience shows that an integrated approach to planning and implementing infrastructure projects optimizes the network effects and increases project benefits. This approach was successfully implemented to ensure coordination between ADB-financed projects in state highways and the PMGSY projects in the states of Madhya Pradesh and Chhattisgarh. By establishing the concept of the district core road network, improvements to both

the PMGSY roads as well as the major district roads were coordinated and project benefits from both projects enhanced. The same approach can also be adopted for planning and implementing projects in different transport modes such as roads, ports, and railways at the sub-national and national levels. This approach is not currently being used, partly due to the separation of government agencies responsible for roads and highways, rail, ports, airports, inland waterways, and urban transport with the formal responsibility for coordinating being at the Planning Commission level. The long-term strategic goal should be to develop and capitalize on synergies and network effects through a more integrated multimodal system to lower logistical costs for transport users. Additionally, there is a need to assess the potential benefits of having regular meetings of a consultative, multi-agency group, and seek views from key stakeholders on their potential support for its formation.

FINANCE AND PUBLIC RESOURCE MANAGEMENT

ADB's finance sector operations have been supporting the development of a more balanced, resilient, and sustainable financial system through two key sets of activities:

- Creation of fiscal space at the state level through Public Resource Management and Development Programs
- Development of institutional capacity to structure and implement Public–Private Partnership (PPP) Projects

Public Resource Management and Development Programs

Public resource management and development programs have been an important modality for helping states such as Gujarat, Madhya Pradesh, Kerala, and Assam undertake fiscal reforms. They have supported institutional development including revenue augmentation measures, expenditure management reforms, and debt restructuring initiatives. By creating fiscal space, the proposed reform programs have contributed to meeting priority social expenditure programs and improving the investment climate. ADB's experience in public resource management suggests the following key lessons:

Sufficient Time and Resources are Required for Policy Dialogue and Effective Political Economy Analysis

Public sector reforms are an iterative process over 5–10 years. The 2 year design provides insufficient time to achieve the reform agenda; reforms require a long-term commitment combining loan and adequate grant resources in different configurations in response to the progress of reforms. Ideally, an indicative allocation of additional resources should be programmed at the design stage.

Government Commitment to Reform is an Important Criterion

This relates to lack of political will to make difficult decisions such as disallowing pay increases, limited bureaucratic commitment to and ownership of reforms leading to weak linkages between outputs and outcomes. Accordingly, a successful program must be underpinned by strong government ownership, commitment, and capacity to weather initial resistance to reforms. ADB needs to actively undertake policy dialogues to secure and sustain government commitment—the desire to reform must stem from within the government. ADB's experience also stresses on the fact that in India's federal system, although state governments bear primary responsibility for fiscal reform, state- and central-level fiscal reforms must be a joint endeavor. As ADB programs illustrate, central government resource transfers and policy decisions on wages and debt management affect a state's fiscal reform agenda. Thus, mechanisms need to be in place to align reform targets between ADB, the state government, and central government. For example, ADB's experience with VAT pointed out that though states harbor much of the need for policy reform and capacity building, the Centre is intent on coordinating fiscal management, thus necessitating preceding and parallel action at the Centre.

Sector Reforms must be Integrated with Public Resource Management to Enhance Synergistic Impacts

Sustainable public resource management mandates that the sectors that cause large drain on the fiscal space be reformed to ensure sustainable outcomes for the future. In this context, the power sector and related subsidies have challenged the fiscal space in many states. ADB's PRM projects in states like Madhya Pradesh, Gujarat, Assam have ensured simultaneous reform of the power

sector and PRM, with cross effectiveness clauses and combined outcomes monitoring to address this challenge contributing to positive outcomes.

Achieving Social Development Outcomes

Under ADB's second generation PRM programs in Mizoram and Meghalaya, service delivery improvements in health and education in a cost effective manner are the key components. This ensures that the freed up fiscal space is indeed earmarked for social development activities. Both in the Meghalaya and Mizoram, the freed up fiscal space under PRM programs is targeted to support creation of a corpus fund to provide universal health insurance, including cashless health insurance to the people and VRS to replace under qualified teachers in primary and middle schools by suitably qualified teachers. These two interventions are expected to have far reaching implications for achievement of millennium development goal targets in health and education.

Mitigation Measures Need to be Designed in the Program

For example, Madhya Pradesh had encountered unexpected political, economic, and social impacts resulting from its bifurcation into a smaller Madhya Pradesh and the new state of Chhattisgarh which had spill over effects on the program implementation.

Opportunity to Improve Governance Standards

All programs included measures to improve governance standards, including:

- Simplifying the taxation system and computerizing its administration

- Improving the transparency of budget planning and reporting systems
- Computerizing the revenue, expenditure, treasury, and debt accounts
- Reducing and in some cases eliminating subsidies and their abuse
- Creating independent power and port sector regulatory authorities with board members selected from outside government
- Automating government staff inventories
- Closing loss-incurring public enterprises and introducing performance-based management systems for staff in those enterprises remaining in operation

Moreover, reforms need to be supported by a strong institutional underpinning. It is vital for reforms to be integrated into existing and more permanent government structures to sustain momentum.

Sufficient TA Resources should be made Available over the Long Term to Respond to the Changing Nature of Reform Processes

Reforms require changes in management practices. The scope and timing of TA to formulate or refine policy, legislative, and regulatory frameworks, and requisite systems and procedures, are different from those required to empower change agents to sustain reforms. Particular attention should be given to developing human resource capacity and enabling governments to sustain capacity development programs through the use of innovative adult education methods. In particular, more attention needs to be paid to budget planning; execution; monitoring and reporting; integrating expenditure prioritization and resource allocation; and restructuring salaries, subsidies, pensions, public enterprises, and debt management.

Public Private Partnerships

ADB has been supporting Government of India's public private partnership (PPP) through a number of TA projects. The joint ADB–Government of India PPP Initiative addresses various aspects of the PPP environment including capacity building, transfer of best practices, and development of a pipeline of projects. A pipeline of projects has been created for challenging sectors, such as the urban (water, sewerage, and solid waste management), health, education, power distribution, and the rural sector. ADB's work under the joint ADB–Government of India PPP Initiative suggests some possible lessons on policy directions.

Strengthening Sector-specific Policy Frameworks

The policy framework could be fine tuned to meet the requirements of specific sectors and for specific PPP modalities

with clear guidelines on issues such as financial sustainability, etc. For example, some areas where more developed and streamlined guidelines would help include model documents for PPPs, classification of health and education as infrastructure, etc. Providing more resources to states and sectors on general matters such as the use of transaction advisors for developing financial models), setting up of fund pools, tools (such as funds), and allowing states and local governments to undertake actual implementation of PPP projects could also be considered.

An Agenda for Institutional Reforms

In ADB's experience, infrastructure assets can be optimally used through explicit assignment of clear responsibility and performance benchmarks. This is especially true of the water, sanitation, urban transport planning, and slum development sectors—areas where government departments responsible for implementing



Surat-Manor Tollway

projects are generally operating without adequate institutional systems, people, and technical expertise in place. In this context, corporatization or ring-fencing of utilities can be an effective solution, as seen by the experience of Nagpur Water Company, Pimpri BRTS Company, and the Bangalore Metro Company.

Allowing Municipal Governments to Create these New Structures with Proper Accounting Systems should be Prioritized

These institutions could be enhanced by ensuring greater permanence of professionals. Currently, most of these institutions are staffed by officials with relatively short tenure who find it difficult to develop and implement projects. Moreover, there is a need to recruit professional managers for utility management.

Developing a 'Leveraging' Mindset

Given the massive requirement of funds to finance India's infrastructure needs, it

is clear that the funds of the government including grants such as those for PURA, Bharat Nirman; and development agencies will only go a small way in meeting these needs. There is a concern that grant funds, in particular, may not be utilized most effectively by recipients. A mechanism that could be explored for tackling both these problems is to require government and development agency funds to leverage their assistance with funds from commercial banks, private equity finance, and through PPPs. In this context, government grants and donor funds could be linked with a small percentage of commercial/private funds. Further, grants should not be allowed without a proper financial model and capital plan in place.

ENERGY SECTOR

ADB has been closely engaged in development of the power sector at both national and state levels. It has been



Workshop on Safeguards for Contractors and Consultants, New Delhi, May 2011

actively involved in funding investments to increase transmission and distribution in line with the government's priorities. ADB has also been supporting the government's policy reforms by incorporating policy components in loans aimed at establishing and operationalizing fully functional, independent state electricity regulatory commissions; unbundling state electricity boards into separate companies for generation, distribution and transmission; and improving overall sector governance. Apart from this, ADB's policy work in the energy sector has also focused on tariff restructuring and revenue rationalization, reduction of government subsidy, private sector participation in transmission, bulk power transmission on a commercial basis, recruitment of top management positions through competitive process, and reduction of system losses and improved collection efficiency.⁴ Some lessons from ADB's operations, focusing more on reform-related issues in the sector include:

Restructuring Activities Must not Ignore Political Economy Issues

ADB's policies in the energy sector have often focused on financial and tariff restructuring and revenue rationalization as well as lower costs, resulting in reduced need for government subsidy and more funds available for the social sectors. A

lesson from ADB's experience in such restructuring efforts is that it is a process that involves considerable change in the balance of power. Authority is transferred from ministers and civil servants to regulators, customers, and privately owned or commercially managed public companies. Top managers in those utilities may be unhappy with the loss of status and/or jobs. Hence, inclusion of political economy issues and strategies to address concerns of those who might not support restructuring will result in more realistic timeframes.

Develop and Strengthen Regulators

Similarly, the development of regulators' expertise, independence, and transparency and consumer advocacy removes political interference and provides a balance between the needs of consumers and industry, leading to consumer involvement and a shift in focus from supply to service. Transparency can be increased through websites and other public information mechanisms and the early appointment of regulators and formulation of enabling regulations can result in a smoother transition to a commercial environment. It can also benefit from having clear and consistent regulations so that the rules of the game are clear to all and risks appropriately assessed by all parties.

⁴As in other sectors, some of the ADB interventions have also aimed at building up the institutional capacity of the executing agencies. These include enabling the executing agencies to prepare detailed feasibility and project reports and project proposals with due consideration for outcomes and impacts. It has also helped the executing agencies to consider the adoption of best options for minimizing the environment and social impacts due to the implementation of proposed projects. In addition, the executing agencies have also been exposed to international best practices in areas such as international competitive bidding procurement. In the case of Bihar Power Sector loan processing, ADB helped executing agencies' staff to familiarize themselves with power system planning computer based software packages and the use of various planning tools of these software packages for conducting future power system planning. Similarly, under the Himachal Pradesh Clean Energy Development Program MFF, ADB helped executing agencies to prepare CDM project on pilot basis and develop in-house capacity in CDM procedures.



Knowledge Forum on Agriculture and Natural Resources Sector in July 2011 in Kovalam

Accountability and Incentives are Key to Improved Performance

ADB's experience indicates that regulatory and institutional reforms will not result in improved performance in the absence of accountability and incentives (for example, with the Madhya Pradesh Power Sector Investment Program). Measures can be taken to reduce Aggregate Technical and Commercial (ATC) losses and increase financial autonomy and managerial accountability. The reduction of ATC losses requires technical measures (reducing the overloading of distribution feeders, HVDS and bundled conductors to prevent electricity pilferage), institutional measures (improved metering, billing, and bill collection) as well as governance related actions (discouraging electricity theft by taking legal action against the pilferers). The reform program should go beyond the institutional reforms and encourage

the regulator to set performance targets and ensure compliance with those targets through an incentive and/or penalty mechanism. Moreover, sustained TA is needed to support the reform programs at the state level.

Building Institutional Capacity of Executing Agencies

As in other sectors, ADB's experience has shown the importance of building the institutional capacity of executing agencies. What can be especially useful are measures that enable executing agencies to prepare detailed feasibility and project reports as well as project proposals with due consideration for outcomes and impacts. This is especially relevant in the case of unbundled agencies which in the initial stages will result in the dissipation of experienced project planning and project management staff amongst the new agencies.

Operational Autonomy Matters More than Ownership Structure

Private sector participation in transmission, bulk power transmission on a commercial basis, and recruitment of top management positions through competitive process are often believed to bring significant benefits. However, it has been observed that corporatization can provide benefits similar to those normally attributed to privatization. Thus, full privatization of public utilities is not the only option. Outcomes from successful projects in the public sector indicate that corporatization with government ownership can deliver good results if commercially and financially sustainable principles are introduced to improve efficiency and deliver better services to customers. Too much reliance on the private sector for power generation investments when there are structural issues

in the distribution sector may not result in desired outcomes as financial viability and cost recovery are important considerations. The key here is operational autonomy given to a corporatized entity rather than the ownership structure *per se*.

Need for Integrated Planning

Since generation, transmission, and distribution systems are frequently the responsibility of different agencies and/or private sector players, there is need for integrated planning to ensure that planning and implementation of capacity augmentation projects are coordinated among the different parties. This can ensure optimal benefits and reduce risks for all players in the sector. In this respect, the planning capacities of state energy departments may need to be strengthened.



Dosing in Karnataka Urban Development Project

Case Studies



This section illustrates how specific projects have utilized the various interventions described in the previous chapter. The interventions were mostly applied in the case of specific projects financed by ADB to particular executing agencies, resulting in several lessons to ensure improved preparedness of those agencies for subsequent ADB-financed projects.

The projects have been selected for these case studies on the basis of the following parameters:

- Projects from sectors in which ADB operates in India: two projects each from urban development and transport, and one each from agriculture and natural resources, and the energy sector.
- Projects with executing agencies that have received multiple loans from ADB over time and have applied the learning from the first project to subsequent ones for improved project readiness and implementation.
- Projects with innovations in resolving implementation issues by using the interventions discussed in Chapter 3.

The following case studies have been selected (Box 4.1):

Box 4.1: Case Studies Selected

S. No	Sector	Case Studies
I.	Water Supply and Other Municipal Infrastructure and Services	1. Karnataka Urban Infrastructure Development Project 2. Rajasthan Urban Infrastructure Development Project
II.	Transport	3. Chhattisgarh State Road Development Sector Project 4. Rural Roads Sector I Project
III.	Energy	5. Madhya Pradesh Power Sector Development Project
IV.	Agriculture and Natural Resources	6. Chhattisgarh Irrigation Development Project



Waste water treatment plant at Manglore

A brief description, illustrating why these projects are important in ADB's portfolio, is provided below.

Karnataka Urban Infrastructure Development Project

Beginning in 1995 and one of the first projects in Urban Development sector supported by an external development assistance in the country, this is now one of

the longest sustained urban development projects in the state of Karnataka. The first ADB assistance (Loan 1415) which was extended for the Karnataka Urban Infrastructure Development Project (KUIDP), facilitated the second ADB assistance (Loan 1704) to the state for Karnataka Urban Development and Coastal Environmental Management Project. Both these projects were executed by the then newly formed Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC). The projects faced several challenges at the inception stage, such as inadequate planning prior to implementation and low institutional

capacity of the executing agency for sustaining assets over project life cycle. The works under both these projects have now been completed, and subsequently KUIDFC has availed ADB assistance under multi-tranche financing facility (Loan 2312 and 2638) for the North Karnataka Urban Sector Investment Program (NKUSIP). The case study demonstrates the institutional development of KUIDFC to become an efficient executing agency capable of delivering multiple projects across the state and maintaining project assets effectively. It also demonstrates the meticulous consultative process and mechanism that have enhanced community participation and ownership.

Rajasthan Urban Infrastructure Development Project

This project, the first engagement with the urban development sector of Rajasthan, was initiated under ADB assistance (Loan 1647) in 1998. Subsequently, the engagement has widened in ambit through ADB assistance under multi-tranche financing facility in 2007 for Rajasthan Urban Services Development Investment Program (RUSDIP). Another key issue was effective preparation and designing of sub-projects, especially in water supply as Rajasthan is an arid state. The executing



Newly Constructed ROB under Rajasthan Urban Development Project in Jaipur

agency overcame these challenges through capacity building, initiating community participation, and building stakeholder consensus around the project outcomes. The comparatively smooth implementation of RUSDIP reflects the efficient planning by the executing agency and the gains realized from it.

Chhattisgarh State Road Development Sector Project

This case study covers the challenges and issues faced in transport sector projects in

state roads sub-sector and focuses on one of the least developed regions of India. ADB approved this project in 2003 (Loan 2050). Critical issues emanated from Chhattisgarh being a new state carved out from Madhya Pradesh, and constrained in terms of adequate manpower and limited experience in planning, implementing, and managing large-scale infrastructure projects. Given its low level of development, contractor disinterest was also a critical issue in project implementation. This case study demonstrates the innovative approaches followed by the executing agency to garner adequate skilled personnel and build institutional capacity for improved management of state road sector.



Rural road in Chhattisgarh



220/132/33 kV sub station under Madhya Pradesh Development Project

Rural Roads Sector Project-I

This project was approved by ADB in 2003 (Loan 2018). Under this project, ADB assistance was extended to the Pradhan Mantri Grameen Sadak Yojna—a Central sector scheme—for two states, Madhya Pradesh and Chhattisgarh, to improve the quality of overall project implementation of rural road projects. Bringing in international experience in project implementation and the learnings from its application in the field, the project demonstrated the accelerated implementation on ground. Subsequently, ADB extended its assistance under Rural Roads Sector Project –II (RRSP-II) to five states—Madhya Pradesh, Chhattisgarh, Assam, West Bengal, and

Odisha. National Rural Roads Development Agency (NRRDA) applied the knowledge and experience gained from the RRSP-I to RRSP-II.

Madhya Pradesh Power Sector Development Project

This project was a pioneering work as it internalized a number of reforms subsequently facilitated by the Electricity Act, 2003. ADB-assistance to this project was extended in 2001 (Loan 1868 and 1869). The main focus was on the policy and regulatory aspects and creation of power

transmission and distribution assets. The key issues that emerged as challenges in implementation were inadequate capacity for implementation of international best practices in procurement and unsatisfactory management of large number of low-value contracts. Both challenges were sought to be addressed through capacity building and institutionalization of advanced procurement practices.

Chhattisgarh Irrigation Development Project

The agriculture sector is one of the most challenging sectors in India. This project,

approved in 2005 under Loan 2159, sought to address the issue of one of most critical agri inputs, i.e., irrigation. This project faced critical issues as it focused on revitalizing the irrigation infrastructure and fostering community participation through water user's associations (WUAs). The project highlights the efforts and approaches used in fostering participatory irrigation management (PIM). It also demonstrates effective project implementation through initiatives for involvement of citizens supported by NGOs in service delivery.

Thus, all six case studies dwell on different facets of project implementation and the issues encountered. They demonstrate the processes and mechanisms employed to arrive at satisfactory solutions. Detailed descriptions of these are provided in the following pages.



WUA meeting in progress in Chhattisgarh Irrigation Development Project

Karnataka Urban Infrastructure Development Project

KUIDP (Loan 1415) and KUDCEM (Loan 1704) – Completed ■

NKUSIP (Loan 2312 & 2638) – Ongoing ■

Water and Other Municipal Infrastructure and Services

PROJECT BRIEF: LOAN 1415 – IND AND LOAN 1704 - IND

Karnataka Urban Infrastructure Development Project (KUIDP), was ADB's first engagement with the urban sector in Karnataka, and in India. The project began in 1995 with the approval of the US\$ 80 million loan from ADB and focused on improving the urban facilities in six towns in the Bengaluru sub-region area—Channarayana, Mandya, Maddur Ramanagaram, Tumkur, and Mysore—to ease the growing pressure on the state capital, and India's IT hub. This project concluded in 2004 and improved access to water supply and sanitation for around 1 million people and benefited 0.2 million poor and vulnerable people through its slum improvement and low-cost sanitation programs.

The US\$ 145 million Karnataka Urban Development and Coastal Environmental Management (KUDCEM) Project, ADB's second urban project in Karnataka, focused on improving the living condition of 1.2 million people in the 10 coastal towns of Karwar, Ankola, Dandeli, Bhatkal, Sirsi, Kundapura, Mangalore, Puttur, Udipi, and Ullal, and protecting valuable natural resources such as mangroves,



Water treatment plant at Mangalore city

beaches, and estuaries. Besides improving key infrastructure and environment protection facilities, the project supported recycling of waste water in Mangalore, composting and scientific disposal of municipal solid waste, and planting of mangroves and casuarinas to prevent coastal erosion in the project towns. The project aimed to achieve sustainability in the operation and maintenance (O&M) of infrastructure and delivery of urban services by strengthening urban management capacities of local governments and establish appropriate environment planning, management, and monitoring mechanisms to address potential environmental impacts of urban and industrial growth.

The financial details of the project loans and their milestones are tabulated in Box 4.2.

Box 4.2: Loan Milestones and Financial Information

Loan number	1415 & 1704				
Executing agency	Karnataka Urban Infrastructure Development and Finance Corporation				
Important milestones	Loan	Approval	Signing	Effective	Closing date
	1415	14 Dec 1995	10 May 1996	08 Jul 1996	30 Jun 2004
	1704	26 Oct 1999	19 May 2000	21 Sep 2000	30 Sep 2009
Loan details (US\$ million)	Loan	Loan amount	Cumulative disbursement		
	1415	80.00	80.00		
	1704	145.00	145.00		
Status	Projects completed				

The key project components such as investment and finance are tabulated in Box 4.3:

Box 4.3: Key Project Components

KUIDP Loan 1415		KUDCEM Loan 1704
<i>1. Investment Component</i>		
Physical assets	<ul style="list-style-type: none"> • Rehabilitation and augmentation of water treatment capacity by 65 MLD and upgrading of 408 km of distribution network • Rehabilitation and expansion through new a sewage collection system spanning around 164 km and 190 MLD of STPs constructed. • Implementation of a solid waste management program through a 200 ton/day composting plant and development of new disposal sites • Upgrading of 190 km of urban roads and development of truck and bus terminals in Tumkur and Ramanagaram • Improvement in 36 slums across project cities by providing basic urban services facilities 	<ul style="list-style-type: none"> • Augmentation of water treatment capacity to 322 MLD and upgrading of 1995 km of distribution network • 395 km of sewer network improved and 106 MLD of STPs constructed. • Rehabilitation of 60 km of storm water drainage system • Provision of vehicles, disposal bins, and carts to improve waste collection and development of environmentally appropriate landfill sites of cumulative capacity of 286 MT/day • Rehabilitation and construction of 148 km of urban roads • Improvement in 44 slums across project cities by improving basic urban service facilities

Contd.

Box 4.3: Key Project Components (*Continued*)

	KUIDP Loan 1415	KUDCEM Loan 1704
	<ul style="list-style-type: none"> • Development of about 17,500 low-cost sanitation units across the four project towns • 90 plots developed at industrial sites in Tumkur 	<ul style="list-style-type: none"> • Development of 10,231 low-cost sanitation units for the economically weaker sections • 2,298 hectares of forestation of seashore plantation completed (mangrove rehabilitation)
Implementation support	<ul style="list-style-type: none"> • Assistance in selection of a consultant for benefit monitoring and evaluation (BME) • Extensive training programs for quality control and implementation of works, public awareness, and building of town's capacity and efficiencies 	<ul style="list-style-type: none"> • Implementation assistance covering incremental administration, equipment and vehicles for implementation, design and construction supervision, preparation of long-term traffic management plans, and project management services

2. Finance Plus - Reform Components

Institutional strengthening, capacity building, and policy and regulatory reforms	<ul style="list-style-type: none"> • Assistance in institutional strengthening and capacity building • Municipal reforms under the municipal management program to streamline institutional and service management initiatives • Improving the financial resources for project towns • Establishment of community development and training and capacity-building organizations • Extensive interaction with elected representative's town councils and municipal staff to encourage and support new initiatives 	<ul style="list-style-type: none"> • Strengthening institutional capacity for effective environmental management • Implementation of reform component under "Nirmal Nagar" or "beautiful town", the underlying component supported the computerization of basic municipal functions, introduction of fund-based double-entry accrual accounting system, and capacity building for improving transparency and accountability in 47 towns of Karnataka • Improvement of property tax collection efficiency improvement up to 25%, taking the average collection efficiency to more than 80% across the participating towns • Setting up of public grievance cells and websites to improve interface with the public • Formation of community based organization (CBOs) to participate in the design and implementation of slum improvement sub-projects
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Water Treatment Plant at Udipi city



Self help groups created under the project at Udipi and Mangalore

The crux of KUIDP and its significance is captured in Box 4.4:

Box 4.4: Project Essence

Project Essence

The Karnataka Urban Infrastructure Development Project was ADB's first loan to the urban sector in India. To date, it fulfils ADB's objective of supporting integrated urban development in India to foster economic growth, reduce poverty, and increase value of human capital; and of improving the management of natural resources. The emphasis on involvement of NGOs and CBOs in the design and implementation of poverty reduction sub-projects has led to an increase in community participation, creating a strong sense of ownership with increased responsibility and accountability for developing sustainable infrastructure.

SALIENT APPROACHES IN PROJECT DESIGN

Participatory planning and implementation

Participation of local representatives and formation of NGOs and CBOs was emphasized from the early stages of project inception to ensure a sense of ownership and sustainability, and to support project implementation.

Social action programs

NGOs were identified to implement awareness programs on health issues, skill augmentation through training and for income generation focused on women and children in project slum areas. These self-help groups were integrated with government agencies following the social action plan and were provided training programs for development with a view to employability.

Balanced regional development

There is significant demand for improving urban areas in most rapidly urbanizing states and cities. The fundamental approach to urban development in the state was to provide accessibility to basic services to people from all income levels through improved coverage, sustainable infrastructure, and a cost-recovery mechanism, creating effective rural-urban links. It also aimed at providing housing assistance to low-income groups at affordable interest rates.



Sewage treatment plant at Mangalore city

CHALLENGES AND INTERVENTIONS

Since this was the first integrated urban development project in modern India, the executing agency had limited expertise with development institution financed large infrastructure projects, and had to undergo a steep learning curve in a short span of time. The process is tabulated in Box 4.5:

Box 4.5: Limited Experience of Executing Agency

Issue faced	Limited prior experience of handling large-scale infrastructure projects
What was happening?	Limited experience of executing agencies and contractors in understanding their contractual obligations, complexities in scheduling infrastructure works, inadequate monitoring, and slow decision making, leading to delay in progress of the project
Recourse	<ul style="list-style-type: none"> A strategy was formulated to increase the capacity of the executive agency through training programs and consultancy support. Discussions were held with various departments to identify department personnel for providing trainings at regular intervals. Selected departmental personnel were trained and sensitized to handle such large-scale complex projects and also made to understand ADB's procurement and project administration procedures.
Results	The executing agency and project implementation units (PIU) are now better equipped to handle project outputs and have played an important role in expediting project implementation.

Certain changes and modifications were forced due to unavailability of land and change in scope (the earlier scope was designed on the basis of secondary data), resulting in delays (Box 4.6).

Box 4.6: Delays Due to Inadequate Preparation and Improper Planning

Issue faced	Inadequate project preparedness and improper planning leading to delay in progress of the project
What was happening?	Limited experience of staff in assessing and planning pre-project work, non-availability of authentic data and maps resulting in change in scope, and land acquisition difficulties led to delay in progress of the project.
Recourse	<ul style="list-style-type: none"> ADB and DEA emphasized on the project preparedness of executing and implementing agencies. The agencies were asked to prepare for the required stages in advance in order to avoid any kind of delays. Land acquisition was carried out according to ADB guidelines and resettlement plans, which mandated providing compensation to affected people at the market rate as against the earlier practice of compensation based on government rates. A dedicated environment officer having requisite skills and experience was appointed at each ULB to provide support in project implementation.
Results	Improved project readiness has played an important role in adequate preparation of subsequent projects and improved project preparation has been able to enhance project implementation performance. In addition, the selection of a dedicated environment officer helped in resolving safeguards issues faster.

Laying of water supply transmission mains through the national highway required approval from National Highways Authority of India (NHAI). However, there was a delay in obtaining an approval from the authorities.

Box 4.7: Delays Due to Slow Pace of Statutory Clearances

Issue faced	Slow pace of/delayed statutory clearances from NHAI delayed the delivery of project benefits to the people
What was happening?	Work for laying Mangalore water supply pipeline was stalled as the executing agency could not obtain the no objection certificate (NOC) for laying the transmission mains from National Highway Authority of India (NHAI), thus delaying the implementation of the project.
Recourse	<ul style="list-style-type: none"> • ADB along with DEA promoted an extensive and effective consultation amongst all stakeholders to resolve the issue. • Regular follow-up at TPRMs brought the matter to the knowledge of DEA and sought its help to resolve the matter in time. • TPRMs helped in actively pursuing the matter with NHAI and in arranging bilateral meetings of the executing agency with NHAI to resolve the matter quickly.
Results	The executing agency was able to obtain NHAI clearances.

Ensuring sustainability through adequate O&M measures was a key concern at the completion of the projects/sub-projects. It is important to enhance revenues to meet the O&M cost and make the project sustainable (Box 4.8).

Box 4.8: Ensuring Sustainability of Projects

Issue faced	Lack of comprehensive approach towards developing sustainable projects
What was happening?	There was increasing concern over sustainability of the project activities, achievement of development outcomes, and accountability in resource use, leading to underutilization of facilities. The issues of post-completion project sustainability and establishment of an operation and maintenance framework were inadequately addressed.
Recourse	<ul style="list-style-type: none"> • It was suggested that the executing agency shall take into account components such as house connections as a part of the project cost with subsequent recovery from the users. • A separate O&M unit headed by a superintending engineer level officer was established, and the management action plan (MAP) circulated for comments from the Urban Local Bodies (ULBs). • The executing agency was requested to submit a time-bound action plan for addressing O&M related issues. A public private partnership (PPP) approach was recommended for O&M activities.
Results	The executing agency and Government of Karnataka have been assessing and structuring different PPP models for O&M services and providing 24×7 water supply in the project towns through assistance from ADB.

KEY LESSONS LEARNT

Learnings from first project improve subsequent project implementation

The impact of emphasis on project preparedness by ADB in the first two projects was apparent in the third project (North Karnataka Urban Sector Investment Program or NKUSIP) of KUIDFC with its greater emphasis on advance preparation.

Project components need to be demand driven

Extensive public consultation is essential for the success of any project. Political leadership and public participation need to be combined with comprehensive planning, investigation, and design for timely completion of the project and sustainability of project assets. Project components must undergo detailed planning and appraisal to confirm demand and sustainability.

Local people understand the ground realities better

Localized knowledge of the field staff of indigenous/local agencies can provide insights that external and specialized consultancies may miss out. These agencies can resolve problems with a short turnaround time. Selecting a domestic consultant for BME helps in better understanding of ground realities and enhances project performance.

Capacity augmentation leads to dynamic institutions

Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), created in 1993 along with preparations for KUIDP, the first urban development project of ADB, has grown in strength and has become the nodal agency for executing all externally aided projects and projects under JNNURM in Karnataka. The organization plans, designs, finances, and implements urban projects across the state and provides TA to municipalities for operating and maintaining completed facilities.

Effective monitoring and follow-up ensure better performance

Regular monitoring at the PMU/PIU level, supplemented by training, brainstorming, and familiarization of contractual obligations, helps contractors perform better in terms of timelines and quality, since such parameters are discussed, deliberated, and agreed upon in advance.

Participatory planning enhances project execution, saving cost and time

The project showcased how involving stakeholders such as citizens and NGOs from project inception creates a strong sense of local ownership without causing delays in project execution and also ensures strong project management.



Rehabilitated Urban Road in Mangalore City

ONGOING PROJECT

North Karnataka Urban Sector Investment Program

Given the success of the first two ADB-assisted urban projects, GOK, with assistance from ADB, has envisaged NKUSIP to improve the urban infrastructure in the backward northern region of the state to provide a logical progression of previous ADB assistance and address the imbalance in urban infrastructure and services in ULBs. The aim is also to provide an opportunity to further develop state-level capability and promote private sector involvement in designing and constructing O&M of infrastructure facilities for efficient and equitable provision of basic urban infrastructure and services.

A demand-driven approach has been followed for selecting the towns taking the local government's willingness to implement policy reform measures related to user charges and tariff, and their need in terms of basic urban services as the key criteria. The NKUISP Program is ongoing and about 2 million people living in 25 towns of North Karnataka are expected to benefit from it. It is being executed by KUIDFC, an organization with extensive capacity build-up in the light of its experience in previous projects, and demonstrated abilities through:

- i. Developing the North Karnataka Urban Sector Investment (NKUSI) Program on its own and
- ii. Autonomously developing a viable PSP business model to attract private sector participation into the urban sector.

The following table provides a list of ADB-supported ongoing projects in Karnataka (Box 4.9).

Box 4.9: Ongoing ADB-Supported Projects in Karnataka

Loan no.	2312 & 2638					
Executing agency	Karnataka Urban Infrastructure Development and Finance Corporation/Urban Local Bodies					
Important milestones for project loan	Loan number	Approval	Signing	Effective	Likely closing date	
	2312	26 Jan 2007	23 Jan 2008	25 Apr 2008	31 Dec 2011	
	2638	14 Jun 2010	16 Dec 2010	01 Mar 2011	30 Jun 2016	
Loan details (US\$ million)	Loan number	Loan amount (June 2011)	Cumulative disbursement (June 2011)	Balance for disbursement (June 2011)	Cumulative contract award (June 2011)	Balance for contract award (June 2011)
	2312	33.00	10.55	22.45	35.78	(3.78)
	2638	123.00	3.96	119.04	50.86	72.14
Status	Ongoing					

Rajasthan Urban Infrastructure Development Project

RUIDP Loan No. 1647– Completed ■

RUSDIP MFF Loan Nos. 2366, 2506, & 2725 - Ongoing ■

Water Supply and Other Municipal Infrastructure and Services

PROJECT BRIEF: LOAN 1647 - IND

The project was conceived to support integrated urban development in Rajasthan, where economic growth stimulated urbanization without commensurate investment in infrastructure and services had resulted in deterioration in the quality of urban life. The urban local bodies (ULBs) had limited capacity to undertake large infrastructure projects while the state, like most other Indian states at the time, had to implement the provisions of the 74th Constitutional Amendment of 1992, which envisaged a greater role for ULBs through increased responsibilities in providing urban services. It mandated state governments to transfer to local



WTP at Surajpura under Baisalpur Jaipur Water Supply Project

self-governing institutions adequate powers and revenue sources necessary to carry out their responsibilities. Given this scenario for all-round, comprehensive development of urban infrastructure, the Rajasthan Urban Infrastructure Development Project (RUIDP) was approved by ADB following extensive consultations with the state government and Government of India. The towns covered under the project were Ajmer, Bikaner, Jaipur, Jodhpur, Kota, and Udaipur. As a single umbrella program covering a number of small projects, it is a classic example of how innovations at the field level can effectively optimize results.

A summary of financial information and achievement milestones has been compiled in Box 4.10.

Box 4.10: Loan Milestones and Financial Information

Loan number	1647				
Implementing agency (recipient of loan amount)	Rajasthan Urban Infrastructure Development Project (Special mission mode entity constituted for the project); Other agencies involved: <ul style="list-style-type: none">• Concerned local self-governments• Department of Public Health Engineering• Department of Public Works• Department of Urban Development• Development authorities• Urban improvement trusts				
Important milestones	Loan 1647	Approval 3 Dec 1998	Signing 01 Dec 1999	Effective 18 Jan 2000	Closing date 33 March 2009
Loan details (US\$ million)	Loan 1647	Loan amount 250.00			
Status	completed				

Box 4.11 details the key components of the project pertaining to physical assets and financial information:

Box 4.11: Key Project Components

1. Investment Component

Physical assets

- Construction of water treatment plants (WTPs) at Bikaner, Jodhpur, Kota, and Udaipur. Bisalpur Water Supply Project (BWSP) and 190 tube wells.
- 1,763 km of rehabilitation and extension of water distribution systems
- Sewerage treatment plant at Ajmer, Bikaner, Jaipur, Jodhpur, and Kota. 1,171 km of interceptor sewer lines
- Rehabilitation of 73 km of storm water drains
- Improved solid waste management systems, landfills in Ajmer, Bikaner, Jodhpur, and Kota
- 14 rail over-bridge and flyovers, 96 km of road rehabilitation
- Constructing and operationalizing 10 fire stations in the cities of Ajmer, Bikaner, Jaipur, Jodhpur, and Kota
- Concrete roads, drain works in 129 slums in Ajmer, Jodhpur, and Kota and sewer lines at select locations
- Conservation of 17 historical sites in Jaipur, Jodhpur, and Kota

Implementation support

- Project management consultancy (PMC) services for improvement of project preparation, execution, and management
- Design and supervision consultancy (DSC) services for project design, construction, supervision, and O&M capabilities
- Community awareness and participation program (CAPP) services
- Consultancy services for benefit and monitoring evaluation (BME)

2. Finance Plus - Reform Components

Institutional strengthening, capacity building, and policy and regulatory reforms

- Amendment of municipal and other appurtenant law(s) in line with the 74th Constitutional Amendment to transfer responsibilities and resources to ULBs
- Reduction in water supply subsidies, increasing water collection efficiency to 90%
- Computerization and updating of urban records, identification of properties, proper maintenance of asset registers, implementation of double-entry accounting system, and inventory management



Panna-Meena ka Kund at Amer , Jaipur



OPD block of SMS Hospital Building, Jaipur

Box 4.11: Project Essence

Project Essence

This project is the largest that ADB has executed in the urban development (urban transport, water, and municipal services) sector, and one of the longest running ones. It is in line with ADB's current Country Partnership Strategy of providing support to underdeveloped states. The project is also significant in terms of its efforts to manage natural resources such as water, which is scarce in the state, and conserve the built heritage, something that the state is proud of. Another key aspect of the project is its institutional mechanism—which was also the first of its kind at the time—an interdepartmental task force that had a dedicated and independent charge of the same. This institutional arrangement eventually became the precursor to the requirement of a Project Implementation Unit or a Project Management Office.

SALIENT APPROACHES IN PROJECT DESIGN

Measures for improving the capacity of ULBs

The project design includes measures for enhancing the capacity of ULBs to provide basic urban services, namely, water supply, waste water management, solid waste management, urban transport and roads, emergency medical services, social infrastructure, slum improvement, and urban drainage.

Augmented measures for financial strengthening

Measures towards financial strengthening include user charge reforms to recover O&M cost, financial management reforms through double-accrual accounting, improving tariff collection efficiencies, metering reforms, and reduction in level of subsidies.

Institutional strengthening

In consultation with Government of India and Government of Rajasthan, ADB pursued a comprehensive reform agenda in line with the 74th Constitutional Amendment. Reforms were initiated in tandem with the physical project and focused on augmenting capacity of ULBs of the project cities. The key objectives were creation of an enabling legislative framework and augmentation of revenue sources.



Improved Healthcare Facilities

CHALLENGES AND INTERVENTIONS

The start-up activities under the project were delayed post loan signing due to the inexperience of the executing agency in managing such a large infrastructure project in terms of procedures, monitoring mechanisms, and institutional resources necessary for implementation (Box 4.12).

Box 4.12: Delay in Start of Project Implementation

Issue faced	Delay in start of project implementation
What was happening?	Though the loan was signed in 1999, selection of the consultant was delayed by 18 months and award of first civil works contract was delayed by 24 months owing to low level of experience and capacity of the executing agency in carrying out multi-locational, multi-component projects.
Recourse	<ul style="list-style-type: none">• Strong leadership was provided by the Project Director.• Adequate staffing of PMU and PIUs was arranged as per the need of the project.• Key staff was retained throughout implementation of the project.• Extensive consultancy support was provided by a project management consultant and a design and supervision consultant to build capacity of executing agency personnel through training and skill development.• RUIDP established project implementation procedures, monitoring mechanisms, and procedures for progress reporting from the field. Frequent meetings of the Empowered Committee were held to review progress and provide solutions to roadblocks.• Weekly contractor review meetings (CRM) were initiated by RUIDP to monitor performance and to identify and address skill gaps. Contractor Award and Incentive Program were initiated for quality and timely delivery.
Results	The impact of these initiatives is reflected in improved project implementation as most sub-projects were completed within the implementation period, barring the initial delay. It also improved the contractor's confidence with RUIDP, leading to lower bid prices and cost saving for the project. This capacity build-up of all stakeholders enhanced RUIDP's preparedness for later projects, as seen in RUSDIP.

During project execution, sustainability of environmental resources such as water has been a prime consideration. An environmental sustainability assessment revealed that the extraction of ground water as per the original project design was unsustainable. To overcome the impasse, it was decided to utilize the remaining funds and provide alternate supply source augmentation for drinking water supply to Jaipur city (Box 4.13).

Box 4.13: Unsustainable Water Resources

Issue faced	Unsustainable level of ground water extraction through tube wells
What was happening?	A study revealed that the number of tube wells proposed in Jaipur would lead to drying of underground aquifers. This necessitated a midcourse correction in the project design.
Recourse	<ul style="list-style-type: none">• Discussions were held with the state government and ULBs to find alternate sustainable source of water supply for Jaipur city.• BWSP was taken up to augment water supply.• BWSP was designed to deliver water from existing Bisalpur Dam headwork up to Balawala on the south edge of Jaipur city.• A resettlement and rehabilitation plan was formulated and implemented to acquire land for BWSP.• Phase I of BWSP with a water treatment plant (WTP) was designed to supply 400 MLD with provision of 360 MLD for Jaipur city and 40 MLD for rural areas.• Works were planned and designed for 600 MLD to facilitate expansion program in Phase II, taking capacity to 1,200 MLD by 2016.
Results	BWSP was completed in 2009. It is one of the largest water work projects in India and supplies water to Jaipur city. The initiative reduced dependence on ground water, thus conserving ground water.

Creation of physical assets such as sewer lines and water supply infrastructure was on course; however, people were not coming forward to take sewage connections, resulting in the underutilization of the assets created (Box 4.14).

Box 4.14: Inadequate Public Awareness

Issue faced	Inadequate public awareness and interest in linking to a sewerage system
What was happening?	Sewage systems were developed in the project cities; however, owing to lack of awareness and motivation, beneficiaries were not coming forward to take sewage connections.
Recourse	<ul style="list-style-type: none"> • CAPP strategy was formulated in consultation with state government and executing agency officers. • Indian Institute of Rural Management (IIRM), a state-level NGO, was engaged in October 2003 to design and implement CAPP. • Key activities such as awareness creation through IEC on disposal of solid waste, hygiene, and conservation of drinking water were undertaken. • Sewerage connectivity camps were organized and connections provided to beneficiaries on the spot.
Results	The program served to help enhance the understanding of the project and increased people's participation. As a result of this initiative, asset utilization has improved and the benefit of assets/services has reached more people.

KEY LESSONS LEARNT

Capacity build-up improves project preparedness

Growth of the institutional knowledge base and capacity of executing agencies significantly improves implementation of subsequent projects /sub-projects.

Scope for localized innovations enabled the local people to take initiatives on their own

Capacity building of project staff has fostered an environment of innovation and initiative. For instance, as a follow up project to a sewage treatment plant, the local staff also set up a sewage-to-energy (biomethanation) plant.

Participatory planning can help reduce misgivings and apprehensions and improve on saving time and cost in delivery

The project showcased how involving multiple stakeholders, namely, ULBs, citizens, and peoples' representatives, from the inception of the project creates a strong sense of local ownership, reduces delays in project execution, and ensures strong project management.



Waste Water Treatment Plant at Delawas, Jaipur

Demand-driven selection can ensure greater buy-in of the stakeholder community

The selection of project cities, components, and works should be demand-driven and based on the commitment and ability to implement policy reforms, strengthen institutional capacities, and support community participation.

Community ownership enabled cost recovery and satisfactory O&M

Community ownership promoting strategies pay a high dividend in terms of easing land acquisitions (one of the key causes of project delays) and in achieving sustainability of the assets created through cost recovery and satisfactory O&M.

ONGOING PROJECT

Rajasthan Urban Sector Development Investment Program (RUSDIP)

Financial assistance from ADB successfully supported the development of infrastructure facilities in the six major towns of Rajasthan. Need for similar support in the remaining towns was visualized, and 15 towns were selected for similar works under a new program named Rajasthan Urban Sector Development Investment program (RUSDIP), with financial assistance from ADB under the multi-tranche financing facility (MFF). Like its predecessor RUIDP, RUSDIP is designed to improve the urban environment and

promote ongoing reforms for sustainable, efficient, and responsive urban service delivery in 15 ULBs of Rajasthan identified on the basis of potential for economic growth and tourism.

The benefits to RUSIDIP from the knowledge and experience gained in implementation of RUIDP were most apparent in the project preparedness for RUSIDIP wherein:

- Planning was carried out in consultation with all stakeholders prior to loan approval itself with a specific institutional structure, providing space to all voices in place for consultation and planning.
- Advance preparation was made in terms of consultant selection and procurement process.

The impact of project preparedness is reflected in the reduction in time taken from loan approval to signing, and in contract award and disbursement of loans under RUSIDIP, which has proceeded on schedule, even exceeding annual targets at times. These actions saved commitment charges on the unutilized loan amount after loan signing. The details and milestones of the loan are provided in Box 4.15.

Box 4.15: Loan Details and Milestones

Loan no.	2366, 2506, & 2725 – RUSIDIP					
Implementing agency (recipient of loan amount)	Rajasthan Urban Infrastructure Development Project (Special Mission Mode entity constituted for the project) Other agencies involved:\ <ul style="list-style-type: none"> • Concerned local self-governments • Department of Public Health Engineering • Department of Public Works • Department of Urban Development • Development authorities (select cases) • Urban improvement trusts (select cases) 					
Important milestones	Loan number	Approval	Signing	Effective	Likely closing date	
	2366	8 Nov 07	17 Jan 08	28 Feb 08	30 Jun 13	
	2506	19 Jan 09	18 Feb 09	20 Apr 09	30 Jun 14	
	2725	13 Dec 10	17 Mar 11	16 Jun 11	30 Jun 15	
Loan details (US\$ million)	Loan number	Loan amount	Cumulative disbursement (June 2011)	Balance for disbursement (June 2011)	Cumulative contract award (June 2011)	Balance for contract award (June 2011)
	2366	60.00	42.38	17.62	57.28	2.72
	2506	150.00	41.05	108.95	97.06	52.94
	2725	63.00	-	63.00	7.66	52.34
Status	Ongoing					

Chhattisgarh State Road Development Sector Project

Chhattisgarh State Road Development Sector Project - Loan 2050: Ongoing ■

Transport Sector – State Roads

PROJECT BRIEF: LOAN 2050 - IND

The Chhattisgarh State Road Development Sector Project has been developed to augment the physical infrastructure and harness the untapped economic potential of the state as it was bifurcated from Madhya Pradesh. With limited coverage of rail systems and air connectivity in the state, roads remain the key mode of connectivity between various parts of the state and movement of goods and essential commodities to all regions. To improve the access of its populace to greater economic opportunities, Government of Chhattisgarh has embarked on a large-scale program for developing and strengthening its road network.

Under this project, ADB provides assistance to Government of Chhattisgarh for improvement of 1,249 km of state roads to support economic growth and reduce poverty through improved connectivity and access to development opportunities and social services, including health and education. The project supports the state government's initiative to improve management of the road sector by increasing effectiveness and efficiency.

The milestones and financial details of the loan (Box 4.26), key components of the project (Box 4.17) and the crux of the project (Box 4.18) are as follows:

Box 4.16: Loan Milestones and Financial Information

Loan number	2050-IND			
Executing agency	Public Works Department (PWD), Government of Chhattisgarh			
Important milestones	Approval 15 Dec 2003	Signing 14 Dec 2004	Effective 14 Jan 2005	Closing date 31 July 2011
Loan details (US\$ million)	Loan amount 180.00	Cumulative Disbursement 153.49		
Status	completed			

Box 4.17: Key Project Components

1. Investment Component

- | | |
|------------------------|---|
| Physical assets | <ul style="list-style-type: none"> 810 km roads accorded priority by the state government under Phase I 439 km of roads accorded priority by the state government under Phase II |
| Implementation support | <ul style="list-style-type: none"> Master plan for state road sector development Review and appraisal of the road subprojects Design and construction supervision services |

2. Finance Plus - Reform Components

- | | |
|-----------------------|---|
| Institutional Reforms | <ul style="list-style-type: none"> Institutional strengthening and capacity building for state road sector management Establishment of the Road Management Committee to oversee implementation of the project |
|-----------------------|---|



One of the pre-project roads



One of the post-project roads

Box 4.18: Project Essence

Project Essence

Government of Chhattisgarh accords significant priority to the strengthening of its road network as a key aspect of economic development, since it remains the key mode of travel and transportation of goods within the state. This was the first ADB-assisted project in the state of Chhattisgarh, reflecting ADB's commitment to the state of Chhattisgarh. Also, because of the implementation challenges posed by the limited capacity emanating from understaffing within the EA and conventional business processes, this project provides ample learning experience for other states "...how to do more with less..."

SALIENT APPROACHES IN PROJECT DESIGN

Selection of sub-projects during implementation

A core sub-project was duly identified and appraised in advance and used as basis for identification, appraisal, and final selection of subsequent sub-projects.

Integrated institutional development

The institutional functions and business processes of PWD have been re-engineered to develop its capacity to meet the objectives of the master plan for road sector development. The main focus was on:

- Capacity building of officials for planning, implementing, managing, and maintaining road assets with focus on road safety and sustainable operation and maintenance practices; and
- Improvement of conventional business processes, substituting them with up-to-date, internationally accepted procurement procedures, project planning, implementation, and maintenance.

CHALLENGES AND INTERVENTIONS

In the initial stages of the project, inadequate experience of PWD in planning and formulating projects of similar size and complexity and shortage of technical staff led to severe capacity constraints, inadequate project readiness and delays in project implementation. Reliance on conventional procurement processes aggravated the difficulties.

Box 4.19: Capacity Constraints

Issue faced	Capacity constraints in implementation of large-scale road projects
What was happening?	There was limited staff in PIU; the members relied on conventional procurement and monitoring and review procedures and were not familiar with international best practices in procurement, contract management, and project management. Fresh staff had not been recruited for a long time.
Recourse	<ul style="list-style-type: none">• Acute shortage of suitable, qualified departmental personnel in PIU was met by identifying and recruiting suitable retired personnel in technical and administrative support streams.• Since the need for a Project Director to head the project was not met through regular serving personnel, a retired Chief Engineer with the requisite skills and experience was recruited on a long-term basis to head PIU for monitoring project implementation. This would also address frequent departmental transfers. Retired experts for safeguards were hired by PWD.• Select departmental personnel were identified, sensitized, and trained in ADB's procurement, consultant selection, disbursement, and project administration procedures.• An experienced technical professional was mobilized by ADB and posted in Chhattisgarh to assist PWD in initial project activities. His assistance continued for about two years until pre-construction works substantially completed.• ADB has been engaged in continuous policy dialogue with the state government to address shortage of staff including safeguard professionals.• An assessment of future projection of human resources in PWD indicated immediate requirement for recruiting manpower for planning, implementing, and maintaining state roads. On advice from ADB, the state government recruited and trained 450 fresh engineers for long-term sustainability of project assets.
Results	PIU has been instrumental in expediting the project and meeting timelines, and is now better equipped to handle implementation of large-scale projects. PWD has maintained a highly proactive and encouraging approach in implementing institutional reforms, facilitating creation of posts, and eventual recruitment of such professionals, enhancing the capacities of institutions in the long term.

At the initial stages of the project, issues with performance of consultants and contractors came up. One reason was lack of prior experience of PWD in managing performance of contractors. Slow progress in project execution (Box 4.20) and ad-hoc approach (Box 4.21) were two of the main problems.

Box 4.20: Slow Execution

Issue faced	Slow progress in project execution
What was happening?	The contractors and consultants delayed mobilization of manpower, equipment, and materials, causing likelihood of substantial extension of the implementation period.
Recourse	<ul style="list-style-type: none">• The capacity of project staff on technical matters and project management was substantially enhanced through a large number of focused training programmes and extended to other stakeholders as appropriate, under the TA provided by ADB.• During the various review missions, ADB, PWD and supervision consultants reviewed the implementation bottlenecks to identify specific issues. Feasible action plans with timelines were developed for each contract and agreed to by all agencies.• A consultative approach with mutual consent was used to interact with contractors, consultants, and PWD to brainstorm over the most viable course of action for difficult/controversial matters.• Close coordination between ADB and the senior management of PWD and frequent and regular supervision, particularly by the Principal Secretary, played a very significant role in expediting the project and recouping the lost time.• ADB's handholding support and guidance on complex implementation issues was frequently sought by PIU.
Results	<ul style="list-style-type: none">• Contractors generally adhered to the timelines agreed to in the action plans.• The accelerated pace of activities under the project resulted in significant recovery of time lost in the initial stages of the project.• As an executing agency, PWD improved its implementation capacity significantly for future projects in the road sector.

Box 4.21: Ad-hoc Approach

Issue faced	Ad-hoc approach in road development and planning
What was happening?	No scientific approach or mechanism was employed for planning road development in the state.
Recourse	<ul style="list-style-type: none">• Under ADB's TA, a master plan for development of roads was created using accepted best practices.• The master plan was based on the inventory of existing roads, assessment of road development needs, identification of gaps, road development proposals including new links, budgeting for development, operations and maintenance, and other associated matters.
Results	<ul style="list-style-type: none">• A master plan for state road development was prepared.• All future initiatives of Government of Chhattisgarh in the road sector will be based on this document.



One of the pre-project roads



One of the post-project roads

KEY LESSONS LEARNT

Challenges faced and resolved during the project led to improved preparedness in pre-construction activities for future projects

Issues such as statutory clearances, which slowed the pace of project implementation, have now been factored into pre-construction preparatory activities for future projects.

Rigorous monitoring and follow-up ensure better performance by contractors and consultants

Regular monitoring at the PIU level, supplemented by monitoring at the state level, and a common consensus on performance targets with the contractors and consultants prompt agencies to perform better, within timelines.

Consultative approach to resolving issues

A robust monitoring and review mechanism includes extremely regular and systematic information gathering and deliberations at all levels including ADB, executing agencies, and project consultants. The approach promoted by ADB to collect, collate, and utilize information for resolving implementation bottlenecks at the level of specific contracts can be adapted by other executing agencies.

Institutional strengthening and capacity building is integral to sustainability of assets

Institutional strengthening, improved business processes, and capacity building of executing agencies facilitate long-term sustainability of assets.

Master planning approach for sector development

The master plan prepared during the project demonstrated a rational approach and scientific basis for the selection and prioritization of future investment schemes in the road sector.

Rural Roads Sector I Project

Rural Roads Sector I Project: Completed ■

Transport Sector – Rural Roads

PROJECT BRIEF: LOAN 2018 - IND

On several occasions, Government of India has solicited lending assistance to be used directly as part of a mainstream central sector scheme. Under this project the government has sought financial assistance in the form of loan for a very key scheme for development of roads in rural areas, known as the Pradhan Mantri Gram Sadak Yojana (PMGSY). Owing to the huge extent of roads to be covered all over India, the scheme sought to cover specific states with components of Overseas Development Assistance (ODA) lending, including the World Bank and ADB in addition to its own resources.

ADB extended assistance to this scheme for two states—Madhya Pradesh and Chhattisgarh. ADB's assistance to this scheme was expected to significantly improve the quality of overall project implementation. Bringing international experience in and learning from its application in the field, the ADB funded project lead overall project implementation as a best practice. This case study illustrates such applications of on-field knowledge. In light of the knowledge and experience gained from this project, the subsequent Rural Roads Sector II Project has been extended to five states, namely, Madhya Pradesh, Chhattisgarh, Assam, West Bengal, and Odisha.



Rural road constructed in Chhattisgarh under RRP-I

The financial details and milestones of the loans (Box 4.22), key components of the project (Box 4.23) and the essence of the project (Box 4.24) are as follows:

Box 4.22: Loan Milestones and Financial Information

Loan number	2018			
Implementing agency	National Rural Roads Development Authority (under Ministry of Rural Development at level of Central Government) Madhya Pradesh Rural Roads Development Authority (MPRRDA), at level of Government of Madhya Pradesh) Chhattisgarh Rural Roads Development Authority (CGRRDA), at level of Government of Chhattisgarh)			
Important milestones	Approval 20 Nov 2003	Signing 25 Nov 2004	Effective 25 Jan 2005	Closing 09 June 2009
Loan details (US\$ million)	Loan amount 366.44	Cumulative Disbursement 366.44		Cumulative contract award 366.44
Status	The project is completed, and the lessons learnt have been internalized for the Rural Roads Sector II Project covering Assam, Odisha, and West Bengal in addition to these 2 states.			

Box 4.23: Key Project Components

1. Investment Component				
Physical assets	<ul style="list-style-type: none"> Construction of rural roads of right of way 7.50 m, carriageway width 3.75 m, with particulars as below: 			
	State	Road length (km)	Number of roads	Habitats (settlements) covered
	Madhya Pradesh	5,061.80	1,083	1,551
	Chhattisgarh	4,512.90	1,092	1,656
	Total	9,574.70	2,175	3,207
	<ul style="list-style-type: none"> Addition of black top to the existing roads, including adding more cement concrete top at the sections of water crossing and residential areas; Adding structures to enhance road protection, thereby enhancing road protection and safety; Strengthening drainage structure for better longevity of topping and underlay during rains. 			
Implementation support	<ul style="list-style-type: none"> Project management consultants appointed at the national level in order to support National Rural Road Development Agency (NRRDA) in: <ul style="list-style-type: none"> i. screening and processing additional sub-projects; ii. procuring training services; iii. monitoring compliances of safeguard polices; iv. establishing road maintenance and a planning and management system; and v. monitoring project performance and socio-economic impact 			

Contd.

Box 4.23: Key Project Components (*Continued*)

1. Investment Component

- Six project implementation consultants appointed across the two states to assist Madhya Pradesh Rural Road Development Agency (MPRRDA) and Chhattisgarh Rural Road Development Agency (CGRRDA) in:
 - i. the preparation of sub-projects;
 - ii. supervision and quality control of civil works;
 - iii. implementation of LAP (land acquisition plan) and mitigation of social impacts; and
 - iv. implementation of the environmental management plan (EMP)
- Two civil society organizations recruited for independent monitoring and verification of land acquisition for the project

2. Finance Plus - Reform Components

Institutional development/reforms

- On the job training and workshops were held by ADB for the PIUs and project implementation consultants for:
 - i. realistic work programs,
 - ii. community consultations,
 - iii. environment safeguards,
 - iv. social safeguards, and
 - v. importance of routine maintenance and safety measures

Box 4.24: Project Essence

Project Essence

This project illustrates ADB's commitment to supporting better implementation of normative schemes of Government of India, augmenting such implementation through the application of internationally acknowledged practices that are more responsive to on-field and on-ground realities. Such application usually leads to better public perception and smoother implementation of the scheme, and often results in expected project results being derived considerably faster as compared to instances where normative guidelines are used. The project also upholds the commitment of ADB to provide support to laggard and less developed states with inadequate capacity in project implementation.

SALIENT APPROACHES IN PROJECT DESIGN

Improving implementation within pre-existing guidelines

Since this is a pre-existing central sector scheme, all the relevant guidelines, scheme implementation arrangements, fund flows, etc., are in place. The approach used was to improve compliance to safeguards for better and faster delivery of project components and to improve stakeholder buy-in to minimize resistance to or misgivings against the project.



Rural road works being inspected by PIC staff

Usage of better tools and technique

Typically, the PMGSY is meant to utilize conventional state procurement procedures and standardized PWD contracting. However, in case of ADB-funded PMGSY roads, unit rate contracts were used. Being covered under an ADB loan, this project mandated the coverage of ADB standard bidding procedures, which are believed to be based on international practices, robust and easy to understand.

CHALLENGES AND INTERVENTIONS

The first disbursements under the loan were delayed by almost 10 months despite a pre-existing programme of Government of India owing to the unfamiliarity of the implementing agencies in preparing documents for loan drawl. Further, this was running parallel to drawl procedures as recommended under the normal course of fund flow as prescribed under the PMGSY, and several officials working on the PMGSY tended to follow the same procedures as would have been otherwise used under the scheme guidelines (Box 4.25).

Box 4.25: Unfamiliarity with Procedures and Processes

Issue faced	Unfamiliarity with ADB disbursement procedures and processes
What was happening?	PIUs under the state Rural Road Development Agencies (RRDAs) could not award contracts despite a ready pipeline of approved projects and shortlisted contractors, since they required a formal withdrawal application for reimbursement from ADB and were not familiar with the required disbursement processes for these. Consequently, the contracts could not start in time.
Recourse	<ul style="list-style-type: none">• ADB conducted several training programs for implementing agency (IA) staff to familiarize them with ADB's standard procurement and loan disbursement procedures.• The loan closing date was extended by one year from 30 June 2008 as anticipated at appraisal to 30 June 2009.
Results	Disbursement levels under the project substantially improved since the third quarter of 2006 and reached its peak in 2007.

It was envisaged at appraisal that the project would be implemented over 5 years including pre-construction activities and would be completed by 31 December 2007. However, the project preparation and procurement activities were substantially delayed, which delayed the awarding of the civil works contracts. Despite significant efforts made by the Rural Road Development Agencies, some civil works still could not take off due to very poor response of contractors (Box 4.26).

Box 4.26: Poor Response to Tenders

Issue faced	Poor or low response of contractors to tenders floated under the project
What was happening?	Structuring of the work packages in several cases was marred by the possibility of low profitability or worse, the prospect of working in insurgency-affected areas. In some cases, the contracts were designed to be either too large, or too small. Also, due to the slow mobilization of project implementation consultants, site-level personnel could not be deployed in time and were often not available at time when such mobilization was required.
Recourse	<ul style="list-style-type: none">• Some civil work packages were dropped, while some other contracts were split into smaller contract sizes permissible under the PMGSY guidelines, and some contracts were terminated on account of poor performance by the contractors.• For accelerating the procurement and implementation, the IAs requested ADB to allow parallel action on procurement while preparing each sub-project, which was well supported by the ADB review mission.• ADB advised Project Implementation Consultants (PIC) to mobilize staff, while MPRRDA proposed to appoint local-level individual consultants.• Time inputs of domestic consultants were increased as opposed to international consultants.
Results	<ul style="list-style-type: none">• A total of 509 contracts for civil works were awarded in the period of October 2004 to October 2007 in four batches. All the civil works were completed by June 2009.

A key aspect of the PMGSY was that the land for widening and strengthening of roads was meant to be provided free of cost by the villages. Initially, the project utilized the same model as prescribed under NHAI for highways, applied to a smaller scale of activities. In its basic form, this model provides for lesser social safeguards than what is

prescribed under ADB's policies for involuntary settlement. Further, the process of assembly was often not closed between the village local Panchayat, the party being divested of land, and the revenue records reconciliation (Box 4.27).

Box 4.27: Land Related Issues

Issue faced	Land related issues on account of exceptions in the administrative processes relating to land transfer.
What was happening?	Although the land for widening roads was meant to be voluntarily donated by the villages to be benefited, there were a number of cases where dependents of the owner were reluctant to give up possession. Also, several parties who had transferred land were facing issues of being charged ground rent, since the revenue records were not accordingly updated.
Recourse	Agreement to transfer land was endorsed by the Sarpanch (village headman), and according changes were effected in the revenue records. It was also determined during project formulation itself that minimal acquisition of land, only for shoulder adjustment and drainage construction, would be required. Also, no relocation of people due to minor realignments was expected. Based on a socio-economic assessment, a land acquisition plan guided by Government of India laws and ADB's safeguards policy was prepared for the sample sub-projects. The Land Acquisition Plan (LAP) included an entitlement matrix for various types of losses. For mitigating impacts, a land acquisition framework (LAF) provided options of voluntary land contribution, replacement land, and cash compensation. The project, wherever required, benefited extensively from voluntary land contribution by affected households. ADB and IAs facilitated the formalization of the documentation process with assistance of Project Implementation Consultants (PICs) and village heads for proper record keeping.
Results	<ul style="list-style-type: none"> Land acquisition for the entire length of road covered under the project could be completed without any issues, and well within estimated costs. An LAF was prepared for subsequent sub-projects requiring land acquisition.

KEY LESSONS LEARNT

International best practices in procurement and project management reduce risks leading to efficient project implementation

Unlike conventional PWD procurement processes, ADB procurement procedures, which are based on internationally accepted Fédération Internationale Des Ingénieurs Conseils (FIDIC) based documents, reduce implementation risks during construction (especially contractual).

Capacity building of implementing agencies is a pre-requisite for effective project planning, implementation, and maintenance

It is advisable to train field-level personnel of implementing agencies in procurement, contract administration, and project management in order to develop their capacity to plan, implement, and manage projects efficiently.



Board displaying basic data about scheme and stretch under construction

Application and adherence to appropriate social and environmental safeguards improves the overall effectiveness

Application and adherence to social and environmental safeguards improves the overall effectiveness and acceptance of the project amongst local stakeholders, especially the public-at-large, in the immediate vicinity of the project site.

Appropriate qualification criteria and grouping of works in contract packages expedites award of contracts

This can improve the response of bidders in difficult areas and speed up the award of contracts.

Estimating realistic contract completion time taking into account size, location and difficulty of work to reduce delays

This can not just reduce delays but also guard against potential disputes in contract management.

Madhya Pradesh Power Sector Development Project

Madhya Pradesh Power Sector Development: Loan 1868 & 1869: Completed ■

Loan 2323, 2324, 2346, 2347, 2520, 2732: Ongoing ■

Energy Sector—Transmission and Distribution

PROJECT BRIEF: LOAN 1868 & 1869

Madhya Pradesh Power Sector Development Project (MPPSDP) was developed to support Government of Madhya Pradesh in fostering an efficient, financially sustainable, and competitive power sector. The infrastructure supported by this project would assist in making available the required quantity and quality of power for the state's economic and social development. The project consisted of a program loan focusing on the policy and regulatory aspects and an investment-based project loan focused on the creation of power transmission and distribution assets. Both loans were approved in November 2001.

As a unified entity responsible for both transmission and distribution of power, the state utility—the State Electricity Board—needed enhancement of transmission assets. Its severe financial difficulties were hampering the power sector's growth, affecting social and economic development. A high-level committee appointed by the state government suggested two key measures:

- Trifurcation of the utility into strategic business units engaged in power generation, transmission, and distribution, and
- Establishing a regulatory authority to regulate the working between these strategic business units and their conduct with consumers.

The assistance was proposed to implement these measures at the policy level and to reinforce the reforms through appropriate physical investments in the new strategic business units, empowering them to reduce line and commercial losses and enhance the delivery capacity of the network.



Power pooling sub station for Bhopal

The financial details and milestones of the loans (Box 4.28), key components of the project (Box 4.29) and the crux of the project (Box 4.30) are as follows:

Box 4.28: Loan Milestones and Financial Information

Loan number	1868 and 1869			
Implementing agency (recipient of loan amount)	1868: Madhya Pradesh Department of Finance 1869: Madhya Pradesh State Electricity Board			
Important milestones for project loan	Approval 06 Dec 2001	Signing 21 Mar 2002	Effective 22 Mar 2002	Closing 31 Dec 2006
Loan details (US\$ million)	Loan amount		Cumulative Disbursement	
	Program Loan	179.00	179.00	
	Project Loan	150.00	150.00	
Status	Project completed			

Box 4.29: Key Project Components

1. Investment Component

- | | |
|-----------------|---|
| Physical Assets | <ul style="list-style-type: none"> Reinforcement and augmentation of the transmission system in priority areas, including: <ul style="list-style-type: none"> installation of three 315 MVA 400/220 kV transformers and five 160 MVA 220/132 kV additional transformers; establishment of 222 km of 220 kV lines and 634 km of 132 kV lines; construction of five new 220 kV substations and 25 132 kV substations; construction of four 220 kV feeder bays; and (v) augmentation of 71 132/33 kV substations Improvement of 33 kV and 11 kV systems in Bhopal, Gwalior, Indore, Jabalpur, Khargone, Mandau, and Ujjain Conversion to High Voltage Distribution System (HVDS) system of selected low-voltage feeders supplying agricultural pumps in selected divisions in Mandsaur and Ujjain districts Setting up of a computerized information and revenue management system Providing 35,273 three-phase meters |
|-----------------|---|

- | | |
|------------------------|--|
| Implementation support | <ul style="list-style-type: none"> Consultancy services undertaken for preparing power sector master plan Framework prepared for rationalizing tariffs and reviewing electricity legislation and regulations Project implementation consultants dispensed with, in recognition of Madhya Pradesh State Electricity Board (MPSEB) capacity for project management. |
|------------------------|--|

2. Finance Plus - Reform Components

- | | |
|------------------------------------|---|
| Institutional development/ reforms | <ul style="list-style-type: none"> Unbundled MPSEB into transmission and distribution Finalized the configuration of distribution sector by establishing three distribution companies |
| Policy and Regulatory Reform | <ul style="list-style-type: none"> Implemented key policy reforms and established a policy framework Improved sector governance through greater functional independence of companies Finalized an O&M agreement to enable successor companies to exercise a substantial level of autonomy Carried out financial restructuring of the power sector |

Box 4.30: Project Essence

Project Essence

The project, one of the first such projects in India, was undertaken before the enactment of Electricity Act, 2003, yet reflects the letter and spirit of the Act, which separates the authority from the executive. The project also reflects ADB's commitment towards demonstrating business viability and financial sustainability in a key infrastructure sector offering a basic service, without compromising on the principles of equitable access and fair market principles. The learnings from this project have been internalized by a number of states that have strengthened and restructured their electricity supply sector, albeit under the ambit of the since enacted Electricity Act of 2003.

SALIENT APPROACHES IN PROJECT DESIGN

Emphasis on policy reforms

A key consideration in the project was to separate the components of regulatory and authoritative functions of the sector from those engaged in service delivery, so that:

- Both would have clearly demarcated functions,
- Both could be financially viable within their respective ambits, and
- Each of these components could remain transparent and accountable to each other and to the public through the dedicated areas of work—transmission, distribution, and regulation.



Power pooling sub station for Bhopal

The role of the regulator would require it to be independent from service delivery, as it is also a neutral entity between the consumer and the service provider. This would be addressed through redesigning appropriate legislative and policy tools.

Strengthening of abilities of the restructured utilities

In the second loan targeted towards four restructured utilities—one entity involved in transmission and three in distribution—the focus was to help these utilities generate and develop their own capabilities for managing their new business mandates, as opposed to common systems employed by the erstwhile State Electricity Board. These capabilities include:

- Developing a master plan or functional plan for the power sector,
- Creating new infrastructure assets pursuant to the master plans or functional plans, and
- Operating the new entity, viz., financial management, management of projects, contracts, billing, collection, operations & management, etc.

The loan components essentially cover infrastructure assets and implementation support required for the core businesses of the restructured utilities, viz. development of a master plan or functional plan for the power sector.

Financial restructuring

The steps taken to restructure the state utility required significant measures to make the new entities financially sustainable, viz. restructuring of debts of the legacy entity, division of assets, adjustment in user tariffs, etc. The TA provided established systems and processes to improve the sector's financial viability through efficiency improvement, tariff adjustment, and debt restructuring. A computerized information and revenue management system was also developed for effective measures to strengthen the internal system.

CHALLENGES AND INTERVENTIONS

The second loan, no. 1869, involved creation of new assets, systemic reforms, and capacity development for the newly restructured entities. Since these entities were new and the personnel were used to working under the legacy systems of the State Electricity Board (e.g., centralized commercial planning and procurement units), considerable capability addition was needed for the new entities, which had only a part of the State Electricity Board (Box 4.31).

Box 4.31: Limited Capacity

Issue faced	Limited capacity for key functions such as procurement and commercial project planning
What was happening?	As executing agencies, the newly constituted entities were still employing conventional processes for project planning, procurement, and contract management. Due to the reduced capacity of these entities on account of trifurcation, these processes were taking longer to close and effect contracts.
Recourse	Even though the project readiness checklist was not in effect at that time, officials from ADB provided regular handholding support to the executing agencies in ensuring that the contracts and project plans were in place and that the capacity of the executing agencies increased by being a partner in the process.
Results	The handholding provided by ADB has enhanced the capacities of the executing agencies in discharging their newly found mandates. Consequently, during the subsequent sets of loans under Phase II, the agencies developed enhanced capacities for project identification, formulation, implementation, and management.

The projects and sub-projects taken up under the loan were such that a number of contracts of small value (not exceeding US\$ 100,000) required to be taken up. Typically, these contracts are executed by contractors who lack the ability to execute work on credit basis and need to be reimbursed at regular intervals. Owing to the reimbursement cycle followed for the project, it became difficult for the executing agencies to meet this requirement, and in many cases, contractors of this scale were reluctant to work, owing to the time taken for settlement of bills and other dues (Box 4.32).

Box 4.32: Payment for Low Value Contracts

Issue faced	Need for an appropriate mechanism to facilitate payment for low-value contracts
What was happening?	There was delay in the payment to contractors with low value of contracts as the executing agency had no power of disbursement.
Recourse	In the 2007 TPRM it was decided that ADB shall provide a facility to the executing agencies to set up a second-generation imprest account (SGIA) to disburse an amount of US\$ 1,000,000 or 10 per cent of the loan amount, whichever is less. Funds disbursed by ADB are required to be credited to the imprest account of the executing agencies within 30 calendar days of the disbursement to provide liquidity to executing agencies. As a portfolio strategy, a pilot test was conducted to check timely imprest fund transfer with one or two states, and based on the outcome, it was expanded to cover all other states.
Results	The initiative has provided executing agencies the disbursement power, which is, facilitating disbursement for low-value contracts, and expedited project implementation.

The above projects have demonstrated the commitment of the state government towards reforms for sustainable development and functioning of the electricity sector. The assistance from ADB has helped the executing agencies gain considerable insights into their mandate in the new restructured environment and gain a better understanding of the functional aspects of their roles, which have now been standardized across other states through the provisions of Electricity Act, 2003. Having been capacitated by this project, the state government has now sought assistance from ADB in implementing various components of the sector-level master plan or functional plan for the power sector, which are also being executed by the new restructured entities.

A key feature of the newer projects is that the agencies have declined to avail of TA since the capabilities of the executing agencies have been significantly enhanced to address project management and implementation issues.

KEY LESSONS LEARNT

Substantive learning from one phase has been transferred to the second phase for improved preparedness of projects

The impact of ADB's emphasis on project preparedness is apparent in subsequent loans taken up under the Madhya Pradesh Power Sector Development and Investment Programme, with due recognition to project readiness. The impact of project preparedness is reflected in reduction in the time taken from loan approval to loan disbursement and in awarding contracts.



Distribution system in Bhopal circle

Institutional and legal reforms integral to sustainability of infrastructure assets

Institutional reforms and restructuring of a public entity into separate companies have ensured responsible parties for all appurtenant functions related to discharging obligations for long-term sustainability of assets.

Training at regular intervals has ensured effective delivery mechanisms and has improved on time and cost delivery

The project illustrates how training and development of departmental personnel at regular intervals develops sound understanding of systems and processes, ensuring effective project management. Details of the ongoing projects are provided in Box 4.33.

Box 4.33: Ongoing Projects

Loan no.	Madhya Pradesh Power Sector Development and Investment Programme (Multi-tranche Funding Facility) Loan Nos. 2323, 2324, 2346, and 2347					
Implementing agency (recipient of loan amount)	Loan 2323 & 2346 - Madhya Pradesh Power Transmission Co. Ltd. Loan 2324 - Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co. Ltd. Loan 2347 - Madhya Pradesh Poorv Kshetra Vidyut Vitaran Co. Ltd., Madhya Pradesh Madhya Kshetra Vidyut Vitaran Co. Ltd., and Madhya Pradesh Paschim Kshetra Vidyut Vitaran Co. Ltd.					
Important milestones for project loan	Loan number	Approval	Signing	Effective	Likely closing date	
	2323	04 Apr 2007	12 Apr 2007	14 May 2007	30 Jun 2011	
	2324	04 Apr 2007	12 Apr 2007	14 May 2007	30 Sep 2011	
	2346	04 Apr 2007	12 Apr 2007	14 May 2007	30 Jun 2011	
	2347	21 Aug 2007	07 Mar 2008	14 May 2007	31 Dec 2011	
	2520	13 Apr 2009	27 May 2009	11 Jul 2008	30 Jun 2013	
	2732	21 Dec 2007		07 Sep 2008	30 Jun 2014	
Loan details (US\$ million)	Loan number	Loan amount	Cumulative disbursement (June 2011)	Balance for disbursement (June 2011)	Cumulative contract award (June 2011)	Balance for contract award (June 2011)
	2323	106.00	90.64	15.36	95.74	6.26
	2324	45.00	32.20	12.80	44.03	0.17
	2346	144.00	128.07	15.93	130.85	8.15
	2347	90.00	45.56	44.44	85.37	0.83
	2520	166.00	42.00	124.00	162.52	(7.82)
	2732	69.00	-	69.00	-	69.00
Status	Ongoing					

productivity by upgrading the irrigation infrastructure, revising the legal framework, and providing capacity-building to both WRD staff and WUAs to accelerate IMT for better water management and system maintenance, encourage crop diversification (particularly in the rabi season), and improve farmers' marketing strength in selected areas of Chhattisgarh.

The financial details and achievement milestones of the loan (Box 4.34), the key components of the project (Box 4.35) and the crux of the project (Box 4.36) are as follows:

Box 4.34: Loan Milestones and Financial Information

Loan number	2159 – IND			
Executing agency	Water Resources Department (WRD), Government of Chhattisgarh			
Important milestones	Approval 29-Mar-2005	Signing 20-Mar-2006	Effective 30-Jun-2006	Likely Closing 31-Mar-2013
Loan details (US\$ million)	Loan 1415	Loan amount 80.00		Cumulative disbursement 80.00
	1704	145.00		145.00
Status	On schedule, expected to be closed by 31 March 2013			

TA No.	4573			
Executing Agency	Water Resources Department , Government of Chhattisgarh			
Important milestones	Approval 29-Mar-2005	Signing 9 Nov 2005	Effective 9 Nov 2005	Likely Closing 31-Mar-2013
TA details (US \$ million)	TA Amount 2.600	Cumulative Disbursement (June 2011) 1.997		
Status	On schedule, expected to be closed by 31 March 2013			

Box 4.35: Key Project Components

1. Investment Component

Physical assets	<ul style="list-style-type: none"> Rehabilitation and upgrading (R&U) of minor and medium systems covering over 200,000 ha completed by end of project More diversified and rabi crops produced (40% cropping intensity)
Implementation support	<ul style="list-style-type: none"> Appointment of individual project management consultants; Assistance of a consultant for preparation and implementation of the Participatory Irrigation Management (PIM) Act and capacity-building of WUAs under TA 4573-IND Consulting services for WRD institutional strengthening, project planning, and design

2. Finance Plus - Reform Components

Institutional Strengthening	Improved institutional and legal framework and capacity development for WUAs
Capacity Building	Improved WRD functions for Participatory Irrigation Management, social development, design, and dam safety by Year 3
Policy Reforms	Capacity development program for WUAs established and WUAs enrolled by Year 2
	WUAs and WRD capacity development and support



BEFORE THE PROJECT: Sawatpur Tank main canal unlined at RD1900m DS view



AFTER THE PROJECT: Sawatpur Tank main canal lining at RD 1900m D/S view

Box 4.36: Project Essence

Project Essence

The first project within the Agriculture and Natural Resources Sector covering the functional aspect of irrigation, this project was distinctive for its dominant emphasis on institutional strengthening and capacity-building as opposed to asset creation in most other infrastructure projects. In fact, most of the expenditure on physical assets pertained to the rehabilitation and upgrading of pre-existing irrigation assets, while the bulk of the value addition of the project has focused on improving the institutional and public participation arrangements related to the irrigation assets and their economic returns.

SALIENT APPROACHES IN PROJECT DESIGN

Strengthening the WRD

Much effort has been made to strengthen WRD by setting up the following new operational units for WRD operations under the Project:

- Participatory Irrigation Management Unit that will mobilize and train WUAs;
- Design Unit (with survey team) for asset design activities;
- Social Development Unit (SDU) responsible for social assessment, resettlement, indigenous peoples, environment, and economic analysis of R&U sub-projects design; and
- Dam Safety Unit.



Chak meeting for Rabi Planning

Participatory irrigation management

The pre-existing Participatory Irrigation Management (PIM) Act was strengthened and amended under the Project. This was followed by the development of the PIM Rules, regulations, byelaws, and model Agreements between WRD and WUAs during 2006–2007. In 2007, following an intensive awareness campaign undertaken by the project, the election of WUA's members was held successfully. For the first time in India, in accordance with affirmative actions prescribed in local government laws, seats were reserved for women and socially marginalized sections of the community as part of the WUA's management committee. Support has been provided for capacity development and institutional strengthening of WUAs through TA 4573-IND and the NGO services.

Rehabilitation and upgrading of irrigation systems

147 minor and medium schemes covering 176,750 ha are to be rehabilitated and upgraded for improved irrigation service delivery. The R&U works are carried out through the participatory process that actively involves WUAs and will help them develop a sense of system ownership to facilitate their assumption of management and O&M responsibility.

Agriculture support services

In systems that have received R&U works, the project assists WUAs in developing field channels, preparing on-farm water management plans, and developing rabi cropping (dry season and usually from December to March) and marketing plans. WUAs have been supported throughout the project for :

- sustainable operations and maintenance of irrigation systems,
- rabi and kharif cropping
- better organization to secure their farm inputs supply and
- commercialization of production at better prices

CHALLENGES AND INTERVENTIONS

During the initial stages of project implementation, there were several challenges like inadequate and weak technical capacity of the executing agencies (EA), discontinuity of government officials, poor response from bidders due to remoteness, limited capacity or work overloading of the contractors, and scattered nature of repair works, leading to slow contract awards, lack of supervision, low quality of civil works, and lack of understanding of ADB guidelines and procedures for procurement, consultant recruitment, and fund flows. Similarly, implementation delays were caused by non-functional design units, social development units (SDU), and PIM unit due to a shortage of interested departmental technical officers with requisite experience. Substantial efforts were made by ADB with the active support of Government of India, particularly DEA, to improve implementation performance. The efforts included frequent review missions (seven review missions during 2006-08) to provide continuous handholding support and guidance to the EA to take the agreed actions in a timely manner; joint efforts by DEA and ADB to bring the project implementation on track through regular TPRMs, which highlighted the need to improve project performance, and a joint review mission in March 2009;

and the use of leveraged TA regarding empowerment of WUAs for Improved Water Management. Comprehensive guidance was also provided through high-level dialogue among the state, DEA, and ADB. Some of challenges faced and the measures taken to address them are mentioned below (Box 4.37, Box 4.38 and Box 4.39).

Box 4.37: Lack of Skills and Capacity

Issue faced	Lack of appropriate skills and institutional capacity to implement the project
What was happening?	<p>As required under the loan covenants, several units were proposed to be established and staffed in July 2006. However, only the dam safety unit was officially sanctioned by the state government as a regulatory body to manage the safety of the dams in the entire state in December 2006. All other units were never officially sanctioned and could never retain the required manpower to function adequately and benefit from the project.</p> <p>Contrary to what was anticipated in the project design, appropriate staff from the Water Resources Department could be secured for design and other appraisal aspects. Consequently, the subproject design for the rehabilitation and upgrading of the irrigation system and appraisal report did not progress and this component was delayed. The absence of staff specializing in Participatory Irrigation Management in the unit also led to delays in reforms and reduced participation of WUAs in the R&U.</p>
Recourse	<p>As per the design of the project and the recommendations under Technical Assistance, functional units specializing in Participatory Irrigation Management and Social Development were to be established under the Water Resources Department. As recommended by the Mission, EA obtained an Agreement from the state's Department of Finance (DOF), to establish the two said units for a five-year term. For the first four years, the units would be supported out of project funds, and for the fifth, they would be supported out of Government funds. In order to prevent the staff from becoming long-term manpower liabilities, the staff was to be recruited on a contractual basis.</p> <p>In order to meet the issues related to design and other appraisal aspects of rehabilitation and upgrading of the irrigation system, the technical consultants were assigned the task of identification of sub-projects, design, and appraisal for the projects. To upgrade the skills of the existing staff, three regional training centers have been set up respectively in Raipur, Bilaspur and Ambikapur.</p>
Results	<ul style="list-style-type: none"> • The three training centers have engaged in medium to long-term training strategies that propose to address capacity and skill-based issues of WRD functionaries. • Units/divisions dealing with Social Development and Participatory Irrigation Management have now been introduced in the Water Resources Department.

Water User Associations created prior to enactment of the amended PIM Act of 2006 were either defunct or discharging bare minimal responsibilities. These required to be reconstituted and to appropriately represent the farming community. Gender equity and representation of tribal people was a key concern since women constitute a significant component of the agricultural workforce within the state.

Box 4.38: Unsustainable PIM Practices

Issue faced	Lack of focus on sustenance of Participatory Irrigation Management practices
What was happening?	Although the strengthening of WUAs and amendment of the Participatory Irrigation Management Act of 2006 were integral parts of the reforms agenda, there were inherent capacity issues both within the WRD and the representatives of the WUAs, both of which exhibited wavering commitment to the long-term objectives of the reform. The reform measures such as sharing of revenues at source between the WRD and the WUA on a 50:50 basis and reservation of seats for women and other socially marginalized groups to bring about a gender perspective to the functioning of WUAs, were taking considerably long to internalize.
Recourse	An extensive awareness campaign was launched to sensitize the various stakeholders—WUAs, the WRD, and the public at large—to the long-term benefits of the reforms. The objective of the campaign was to ensure that the stakeholders continue to make informed demands from the Executing Agency insofar as the meeting the reform objectives of the project were concerned, and for the constant strengthening of the WUAs. In addition, a number of related agricultural practices were extensively demonstrated across the areas to exhibit the prospective benefits of the reforms.
Results	In 2007, following the awareness campaign undertaken by the project, the election of WUA members was held successfully. For the first time in India, seats were reserved for women and weaker sections of the community (Scheduled Class [SC], Scheduled Tribes [ST] and Other Backward Classes [OBC]) in the WUAs management committee.

A focus area of the project was revenue recovery in the form of user charges from participatory irrigation systems and retaining the collected charges within the WUAs for operations and maintenance expenditure. Since this has traditionally been a controversial area with a large portion of the farming community not being in favor of paying for irrigation services, it was decided to involve civil society organizations to mobilize the farming community and to sensitize them to the requirement of meeting costs for long-term environmental sustenance. Also, the adoption of better-suited irrigation systems that could reach greater acreage using the same or lesser quantum of water, required to be popularized amongst the farming community. For a long time after the project commenced, there was low general awareness and perception of the farming community about water user associations or participatory approaches.

Box 4.39: Problems in NGO Participation

Issue faced	Difficulty in recruiting NGOs and secure their effective participation in project implementation
What was happening?	<p>As part of the CIDP, 25 pilot projects were selected where the capacity of WUA's would be built particularly in operationalizing the provisions of the amended Participatory Irrigation Management Act of 2006, over the period of implementation.. NGOs were hired by the project to cover 75 additional CIDP schemes under an intensive intervention program (IIP) and the remaining CIDP schemes under a less intensive special program. These NGOs were contracted in November 2007, but the contracts of the NGOs recruited for PIM and Agriculture Support Services was terminated in August 2008 due to unsatisfactory performance.</p>
Recourse	<p>The recruitment of two new NGOs was concluded in March 2010. IIP was extended with the support of TA 4573 to cover 69 schemes including 25 pilot schemes in an area measuring over 100,000 ha. About 250 non-CIDP systems will also be included annually for less intensive or basic PIM training and sharing the experience of IIP (mainly for WUA leaders and other representatives of farmers). In addition, a "Formal Training in Non-CIDP Areas" is being conducted by two NGOs. This program expects to cover the entire state. Interventions will be introduced in other CIDP systems in 2012 by the NGO agriculture specialists with the assistance of some SCOs. Other WUA organizational development activities in systems under IIP include: forming sub-committees, improving leadership and member participation, conflict management, organizing collective behavior, and improving WUA/farmer links with WRD, Department of Agriculture (DA), and the private sector.</p> <p>The IIP, however, has been continued and has produced encouraging results in terms of improved farmer incomes and livelihoods, improved water management and agricultural practices through WUA-managed collective action. In the 69 irrigation schemes covered under the program, irrigated kharif paddy yield increased by 54 per cent over the "pre-project yield level during 2010 kharif, whereas rabi wheat yield increased by 42 per cent over the pre-project yield level during 2009 rabi." Rabi cultivation has expanded from only 2 to 3 per cent to 26 per cent of the command area (of 100,000ha), with diversification of high value crops (groundnut, oilseeds, vegetables, etc.). The kharif yield for 2010 was actually lower than what it was during 2009, as the yield of 2010 was affected by a number of other extraneous factors.</p>
Results	<p>More effective management, development, and sustainable operation and maintenance (O&M) of the irrigation systems has been achieved by WRD and WUAs through capacity development. Formal training is proposed to be imparted in areas not covered by the CIDP. It is also proposed to expand PIM and augmented agricultural activities (viz. the promotion of rabi crops) from the 25 pilot schemes to 69 CIDP schemes, increasing the coverage to about 100,000 hectares</p>



BEFORE THE PROJECT: Dandgaon Tank VRB (E) RD 1560 m



AFTER THE PROJECT: Dandgaon Tank VRB (E) at RD 1560 m

KEY LESSONS LEARNT

Irrigation infrastructure can be proactively converted into a community-owned and managed asset

This has been exhibited in the case of micro and small schemes which are being rehabilitated and handed over to WUAs.

WUAs can be involved in all aspects of irrigation development

Areas of involvement may include (including rehabilitation) and management for sustainable O&M and improved service delivery.

Executing Agencies Require Focused Engagement and Capacity Development

Executing agencies, in order to effectively engage with and meet the expectations of WUAs, need focused engagement and capacity development.

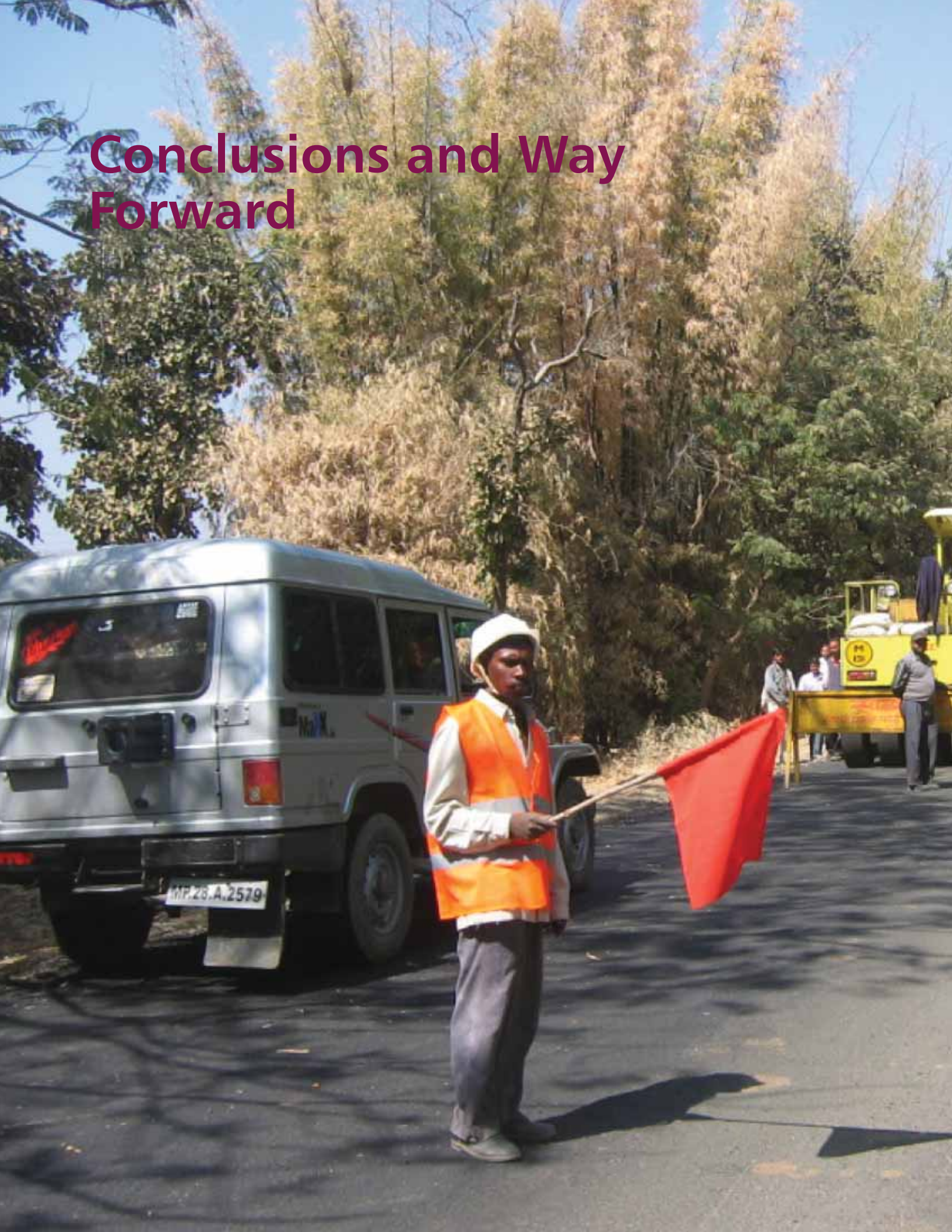
An emphasis on financial resources and O&M is necessary for sustainable improvements


ADB's experience with agriculture projects has shown the need for realism in estimating a project's economic rates of return, which have proven particularly sensitive to rice prices and to the assumed levels of cropping intensity, input use, and productivity.

The need for "infrastructure financing plus" is urgent

Substantially uplifting rural livelihood through irrigated agriculture, by modernizing irrigation infrastructure demands substantial financing and more. It calls for multi-disciplinary project design and an enabling environment. Drivers may include the WUA legal framework and structural changes in irrigation departments. Successful implementation calls for effective program design, high level of implementation readiness, and continuous support for capacity development, along with strong leadership to support the requisite changes in institutions throughout the project cycle.

Conclusions and Way Forward





The application of certain interventions and the best practices followed by executing agencies since the adoption of the new format of the TPRMs in 2005 has generally been effective in reducing delays in the commencement of projects, and improving the executing agencies' overall performance in project implementation. Some of the key findings are summarized below.

- TPRMs have been an effective platform to review project implementation issues and identify project-specific and portfolio-wide actions to resolve bottlenecks in a time-bound manner and improve overall portfolio performance.
- TPRMs have been successful in promoting cross-learning and sharing of best practices among executing agencies. The system needs to be formalized into an always-available forum. ADB's India Resident Mission has already taken such an initiative in the form of the DEA-ADB online portal to provide an open platform for regular interaction among all stakeholders. All knowledge products and presentations on best practices are to be readily available to all executing agencies on this portal. Executing agencies should be encouraged to fully utilize this facility and deploy the experience of other executing agencies to resolve similar implementation issues.
- Application of the project readiness checklist has substantially improved the quality of projects at the entry and has reduced the time taken from loan approval to award of first contract. In addition, anticipated bottlenecks in the project preparatory phase are resolved through advance actions by the executing agencies. This has reduced the overall project implementation period.
- The early warning project rating system based on short-term assessment of the project is largely capable of tracking project implementation performance and anticipates performance issues. While the current system largely focuses on quantitative indicators such as loan milestones, contract awards, disbursements, and completion delay, it may be augmented to capture qualitative parameters for project implementation such as delay in decision-making, progress on reform agenda,



Gas storage for power generation

financial management, statutory clearances, etc. ADB and DEA may jointly introduce an award for selecting “The Best Executing Agency in Project Implementation”, based on a set of key qualitative and quantitative performance indicators to incentivize executing agencies to perform better.

- ADB interventions aimed at institutional development have significantly improved the potential of executing agencies in planning, implementing, and managing projects. Dedicated agencies and special purpose vehicles have generally been able to implement projects efficiently and initiate reforms in a sustained manner.
- Enhanced capacity-building programs and expansion of the coverage of these programs to include sector, technical, and thematic topics such as Fédération Internationale des Ingénieurs-Conseils/ International Federation of Consulting Engineers

(FIDIC) contract administration, project management, DPR preparation, road safety, water demand management, trenchless technologies, etc. has been effective in improving the capabilities of EA personnel in discharging project planning and administration responsibilities. However, there is a need to ensure that the trained personnel from executing agencies are retained in Project Management Unit (PMU) and Project Implementation Units (PIUs) until project completion.

Future Considerations

While the practices employed by ADB’s India Resident Mission over the last six years have addressed several key concerns of portfolio performance, the number and

nature of projects and their expectations warrant cognizance of certain perspectives in the years to come. Future considerations are discussed below.

INCREASING PROJECTS IN THE ADB PORTFOLIO

As of now, the two-day format of TPRM is able to cover all projects in reasonable detail. However, as the number of projects is expected to increase over time, the two-day format may no longer be sufficient to accommodate all the projects.



Water Tank at Bhopal constructed under Madhya Pradesh Urban Loan

The number of participants required to reside at the venue during the event, including representatives from each project, would also make the event difficult to manage.

The following recourses could be considered to retain the effectiveness of the deliberations at TPRMs:

- Using the system of short-term assessment for early warning that has been in use since June 2010, the projects can be classified as red flag (critical and at risk), yellow flag (critical but not yet at risk), and green flag (not critical and not at risk). Since the flag based tag is assigned after a series of review missions conducted normatively by ADB, not all projects within the portfolio would warrant the same nature and depth of review. Thus, priority could be assigned to projects bearing a red or yellow flag, reducing the number of projects in a single TPRM.
- This implies that not all projects within ADB's portfolio can be discussed in a single TPRM, but not that monitoring and review of those bearing a green flag will be any less stringent, since monitoring and review of these projects will continue through the regular review missions conducted by ADB personnel.
- An alternative could be organization of TPRMs for projects specific to a particular sector or geographical region, and exhibiting a certain criticality, e.g., bearing a red and/or yellow flag.

Other suggestions for the conduct of TPRMs may be considered as follows:

- Within the two-day TPRM format, the first day can be spent discussing selected critical/problematic projects based on their color coding on the early warning project rating system and the second day can be dedicated

to a sector-focused knowledge forum. The participants of such forums may include, apart from the representatives of the executing agencies, officials of the concerned line ministry; experts from national/international institutions; and representatives of multilateral/bilateral development agencies like World Bank, etc. Participants may share their experiences, best practices, sector reforms, and upcoming technical innovations.

- The sector-focused TPRMs can be held once every quarter, with the fourth meeting, at the country level, covering all projects and allowing for cross-sector learning. While a sector-focused portfolio review mechanism allows for greater cross-learning within a particular sector, it might inhibit cross-learning across sectors. A shorter, concentrated session on discussing operational and policy-level issues of

a sector generally exerts more impact and leads to higher retention amongst participants as compared to a diffuse, slower, and longer session comprising multiple sectors.

- Often, the functional responsibilities for a project involving executive-level decisions vest with the Project Director, while policy-level decisions lie with administrative officials at a higher level. At a TPRM, project-specific as well as policy-level issues are discussed, and the decisions and directions span both. However, project level decisions usually have faster turnaround time than policy decisions owing to the latter's multi-departmental consultative nature, and frequent lack of consensus between the concerned parties. A dedicated forum for resolving policy level issues separately from functional issues could be useful for focused solutions for such matters.



OPD block of SMS Hospital constructed in Rajasthan Urban Development Project

NEED FOR GREATER TOOLS AND CHANNELS FOR KNOWLEDGE MANAGEMENT

While Government of India is setting up the network of national-level resource institutions, substantial knowledge material from capacity-building programs and sector-specific best practices is available from ADB's portfolio management initiatives such as case studies of best practices from executing agencies during TPRMs, capacity-building training material, ADB's knowledge and products. If joint delivery of these two resources—the delivery channels of Government of India and the on-line portal developed from the learning of India Resident Mission's portfolio management unit can be arranged, the reach of the material to potential agencies can be increased manifold and stream a considerable amount of knowledge over a sustained period.

Possible directions for the future are:

- Utilize a network of resource institutions to prepare and disseminate sector-specific products generated out of the learnings of the various sectors.
- Develop an online presence of sector communities of practice (COP) for discussions and deliberations for knowledge-sharing and resolution of common issues.

Factors such as capacity development and resolution of routine issues can be de-linked

from a formal meeting and be kept open. Further, a moderated online forum¹ allows for formal, clear, and focused discussions without time constraints.

Technically, a similar forum, as part of standard project management processes, can curtail the number of issues being brought for discussions and/or decisions to the TPRM, as many would have been resolved through deliberations within the forum. Also, the presence and working of various resource institutions² can reduce the need to identify specific requirements of capacity development and develop independent sector-specific training and development cycles, which, over time, can become unsupervised by ADB.

ADB's India Resident Mission is also forging a series of partnerships with a number of national resource institutions that provide training in functional skills for project administration. However, these will need to be strengthened over time through experience and feedback from executing agencies.

MAINSTREAMING ADB PROCESSES INTO NORMATIVE EXECUTING AGENCY PROCESSES

ADB's 25 years experience in implementing infrastructure development projects throws up ample evidence of extensive benefits to executing agencies in adopting procedures mandated in administering ADB-financed projects, viz.,

¹ The United Nations Country Team in India runs an initiative known as Solution Exchange (www.solutionexchange-un.net.in) – which is a similar online resource for practitioners of a sector. A member, usually a practitioner, poses a query on the forum, which is responded to by other practitioners based on their experience with similar situations. At the end of 15 days, the moderator prepares a consolidated response, including resources, views and evidence documents and circulates it to members for perusal, including the member who posed the original query. The consolidated response remains as part of the database for general perusal.

² The Yeshwantrao Chavan Academy of Development Administration, Pune, in association with the Mumbai University and the World Bank Institute, Washington DC runs a two year post graduate diploma course in Urban Management, which is increasingly being adopted as part of normative capacity building calendars of municipal bodies all over the country. The content of the course now focuses both on sector specific knowledge as well as functional skills.

application of FIDIC-based contracts, and usage of internationally accepted practices in procurement. However, often these procedures are adopted by agencies only while working on an ADB-financed project, which revert thereafter to legacy processes in procurements and contract administration. This is usually because the normative processes for these functions (e.g., procurement, contracts) prescribed for these agencies, are not updated despite evidence of benefits from using ADB-prescribed procedures. In the event of a repeat loan by an executing agency, the newly inducted personnel are often unable to grasp these processes, since there is no institutional support for sustaining them.

How this Affects Portfolio Management

This issue manifests itself at two stages—once, at the time of a repeat loan for an agency dependent on the normative government-approved procurement, contract administration, procedures, and thereafter, when these assets have to be maintained using the agency's own resources.

Application of legacy procedures often results in selection of service providers who are not able to do justice to the assets.

Possible Future Directions

- i. Promote ADB-prescribed procedures as an acceptable substitute or supplement to normative government-approved procedures so that the audit trail can be maintained for both.
- ii. States entering into a loan agreement under an ADB project can be asked to amend the stated rules and authorize long-term use of ADB-prescribed procedures for their normative work, either as a substitute or as a supplement to the normative government-approved procedures.
- iii. Extensively develop capacity of audit bodies, viz., CAG and state AG offices to scrutinize entities following these procedures based on internationally accepted practices.
- iv. Extensively develop capacity of contracting bodies and State Department of Legal Affairs to understand and mainstream FIDIC-based contracts.

Box 5.1: Evaluation Process for Bids

Evaluation process for bids

The procurement rules of certain state governments in India have still not been updated to include forms of evaluation for bids received for provision of services such as “Quality-cum-Cost-Based-Selection” or “Fixed-Budget-Selection”, and relies almost exclusively on “least cost basis,” even in case of qualitative differences in the item(s)/ services. Consequently, executing agencies do not have any rationale or basis to retain these bid evaluation processes after completion of the project. If a second loan were to be extended to the executing agency, and if the responsibility for implementation were to be assigned to a newer set of personnel, ADB would still need to spend the same amount of time and inputs to orient these new personnel in these procedures. The Government of India has significantly modified its General Financial Rules of 2005, based on internationally accepted practices.

The Road Ahead

The function of portfolio management is likely to evolve from monitoring specific project-related progress to monitoring development effectiveness; this may entail creation of a new forum at a higher level to assess whether or not projects supported by ADB, including the TA programs for capacity development etc., meet development targets tangibly.

The role of the new forum would probably imply tying the Country Partnership

Strategy directly to specific-project targets and development targets, and monitoring both simultaneously to understand the impact of one on the other. This new role may also imply looking at integrated development strategies, spanning multiple interlinked sectors and maintaining a balanced portfolio between these. The focus on the laggard states might evolve into a focus on states with lower Human Development Indices. This way, the development of integrated infrastructure can be aimed to leverage programs and projects across a number of sectors for improving human development.



Karnataka Urban Development and Coastal Environment Management

Annexes

ANNEX 1: ADB PORTFOLIO REVIEW

Cumulative ADB Assistance to India: 1986–2010

Figures in US\$ million

Sector	No. of Loans	Amount	Percentage
Agriculture, Environment and Natural Resources	5	238.67	0.99
Energy	50	7,814.29	32.39
Finance	19	2,620.00	10.86
Health and Social Protection	1	20.00	0.08
Industry and Trade	5	275.90	1.14
Public Sector Management	8	1,050.00	4.35
Transport and Information Communication Technology	37	7,589.05	31.46
Water Supply and Other Municipal infrastructure and Services	21	2,156.82	8.94
Multi-sector	13	2,358.00	9.78
Total	159	24,122.74	100.00

Current ADB India Portfolio as on June 30, 2011

Figures in US\$ million

Sector	No. of Loans	Amount	Percentage
Agriculture, Environment and Natural Resources	5	238.67	2.28
Energy	19	2,578.22	24.65
Finance	2	1,050.00	10.04
Industry and Trade	1	150.00	1.43
Public Sector Management	4	225.00	2.15
Transport and Information Communication Technology	16	3,874.50	37.04
Water Supply and Other Municipal infrastructure and Services	14	1,335.882	12.77
Multi-sector	6	1,008.00	9.64
Total	67	10,460.27	100.00

Source: Asian Development Bank Loan Financial Information System

ANNEX 2: PROJECT READINESS CHECKLIST

SN	Milestones		Action points	Responsible agency
1	Before loan fact-finding mission of ADB	1.1	Project Preparatory Technical Assistance, if any, is substantially completed	ADB/EA
		1.2	Feasibility study report and preliminary design completed	EA
2	Before loan appraisal mission of ADB	2.1	Concurrence of the line Ministry/Competent Authority	Line Ministry/DEA
		2.2	Approval under Fiscal Responsibility and Budget Management Act from Department of Expenditure	EA
		2.3	Approval for Government of India guarantee by Budget Division, if required	DEA
		2.4	Commitment to provide counterpart funds	EA
		2.5	Budgeting for at least 30% of land acquisition and resettlement requirements completed, if any.	EA
		2.6	Designation of PMU/PIUs staff completed and core staff for the project assigned	EA
		2.7	Procurement plan for the project detailing contract packages, modes of procurement, pre-requisites for awarding the contracts, approval flow chart, decision making structure and schedule for each contract be in place	ADB/EA
		2.8	Terms of reference for all consultancy contracts including Project Management consultants, shortlist of consultants/consulting firms and documents for prequalification of contractors are prepared and approved/reviewed by ADB	ADB/EA
		2.9	Environmental management plan for the first two years of project implementation be finalized. Complete initial environmental examination/environmental impact assessment and secure ADB approval	ADB/EA
		2.10	Relief and Resettlement Plan for the first two years of the project implementation should be finalized and confirmation regarding relief and resettlement activities are aligned with the procurement plan be conveyed.	ADB/EA
3	Before loan negotiations	3.1	Bidding documents for all contracts, including criteria for consultant recruitment and procurement, to be awarded during first 12 months of project implementation should be prepared, approved and issued. Issue of RFP for consultants and calling of bids for civil works	ADB/EA
		3.2	Project Implementation Plan/ Administration Manual/ Memorandum covering scope, organization and its terms of reference, procurement, budgeting, disbursement, reporting and auditing arrangement be finalized.	ADB/EA

Contd.

SN	Milestones	Action points	Responsible agency
		3.3 At least 50% of land acquisition (if required) to be completed	EA
		3.4 Establish (a) financial management system (b) auditing arrangement (c) fund flow arrangement (d) system of oversight.	ADB/EA
		3.5 All statutory clearances like environmental/forest clearances to be in place	EA
		3.6 Administrative clearances for temporary use of land i.e. right of way taken	EA
		3.7 Administrative approval for shifting of utilities taken	EA
		3.8 At least 30% of the tendering work should be completed for awarding the contracts	EA
		3.9 Provision of budget for project implementation in first financial year	EA
4	Before loan signing	4.1 Award of contracts for consultancy services to be completed and at least 30% contracts for civil works to be awarded within a month after loan signing.	ADB/EA
5	Before loan effectiveness	5.1 Dedicated PIUs to be established, if need be.	EA
		5.2 Legal opinions taken	DEA/EA

Source: Department of Economic Affairs, Ministry of Finance, Government of India

EA=Executing Agency, PMU=Project Management Unit, PIU=Project Implementing Unit, DEA=Department of Economic Affairs

ANNEX 3: TRIPARTITE PORTFOLIO REVIEW MEETINGS CONDUCTED SINCE 2005

No	Date	Location	Number of Participants		
			Total	Government Staff	ADB Staff
1	8—9 September 2005	Bangalore	50	39	11
2	18—19 November 2005	New Delhi	75	56	19
3	22–23 March 2006	Udaipur	60	39	21
4	3–4 July 2006	Mussoorie	69	43	26
5	30–31 October 2006	Kovalam	69	46	23
6	22–23 March 2007	Bhubaneswar	63	38	25
7	16–17 September 2007	Bhopal	108	78	30
8	7–8 April 2008	Kolkata	104	75	29
9	21–22 July 2008	Ooty	98	69	29
10	7–8 November 2008	Bangaluru	100	69	31
11	2–3 March 2009	Jaipur	93	61	32
12	12–13 August 2009	Chennai	115	81	34
13	12–13 November 2009	New Delhi	97	60	37
14	10–11 February 2010	Mumbai	114	76	38
15	17–18 June 2010	Ahmedabad	119	75	44
16	25–26 October 2010	Indore	113	76	37
17	4–5 April 2011	New Delhi	137	92	45
18	29–30 July 2011	Thiruvananthpuram	123	80	43

Source: ADB India Resident Mission

Note: All TPRMs are chaired by Joint Secretary, DEA and co-chaired by Director General, South Asia Regional Department of ADB.

ANNEX 4: MANUAL FOR CONDUCTING TRIPARTITE PORTFOLIO REVIEW MEETING

Introduction

1. The Tripartite Portfolio Review Meeting (TPRM) is a conference among ADB, represented by staff from South Asia Regional Department (SARD), and Government of India, represented by officers from Department of Economic Affairs (DEA), project directors and nodal officers from central line ministries and state governments.
2. The subject of discussions in the TPRM include: (i) finalizing annual disbursement and contract award targets for each project; (ii) monitoring the achievement of these targets by projects; (iii) discussing major issues affecting project implementation and identifying solutions for them; (iv) reviewing progress on reform agenda; (v) agreeing on time-bound action plan to further strengthen portfolio performance; and (vi) knowledge sharing among participating executing agencies across sectors.
3. Senior functionaries from ADB, Department of Economic Affairs, line ministries from Government of India, nodal officers from state governments and project directors of ADB projects participate in the TPRM. About 100 people participate in the TPRM¹ which requires advance meeting preparations and logistic arrangements. ADB's India Resident Mission Portfolio Management Unit (PMU) coordinates activities related to TPRM. The present manual is being prepared to act as a ready reference for organizing the TPRM and facilitate timely preparatory activities.

Frequency and Timing

4. Ideally TPRM should be held thrice a year as below:
 - i. Late January–early February to review achievements of the previous year and confirm targets for the current year.
 - ii. Late July to conduct a midterm review of the achievements of the first half year and review of problem projects.
 - iii. Early November to ensure achieving of early targets.

Preparatory Activities

Identification of Venue

The venue city and dates for the meeting are finalized in consultation with DEA, generally two months before the TPRM. The venue city is selected based on availability of (i) a good hotel, preferably a five star hotel, which can provide sufficient number of rooms and a conference hall which can accommodate 150 persons. Two hotels can be identified when single hotel is unable to offer required rooms; (ii) good connectivity from capital cities of ADB operating states and (iii) ongoing ADB projects. The contract with the hotel is finalized at least one month before the TPRM. Ideally, advance payment to the hotel is made only 15 days before the TPRM to cover contingency of last minute cancellation. The mission assistant prepares a rooming list containing the name, designation and arrival and departure details of the participants and informs the hotel 10 days before the TPRM to help the hotel arrange airport transfers. A welcome letter with time, conference venue and meeting schedule is distributed to the participants at the time of check-in.

Information to ADB participants

ADB participants are informed about the venue, dates, weather and flight connectivity at least one month before the TPRM to help them make necessary arrangements. ADB HQ participants send their mission clearance requests to the mission assistant 21 days before the TPRM.

Participation

The participants at all TPRMs would include the Joint Secretary from DEA as the Chair, other DEA staff, project directors and nodal officers of state governments. ADB participants include the Country Director and PMU Head from India Resident Mission, PAU Heads from other HQ divisions and project officers from India Resident Mission and HQ. Frequently, Director

¹ With the increasing size of India's portfolio, the number of participants is also increasing, and future meetings may see participation of 125 to 150 persons within the next 1 year.

General, South Asia Regional Department, ADB (DG SARD) and other sector directors also join the TPRMs. At the second TPRM for each year, an additional participant from the concerned line department in each state is invited. A Mission Assistant from India Resident Mission is assigned for all coordination activities at the TPRM. ADB requests DEA to seek nominations for participation in TPRM at least 2 months before the TPRM. The final list of participants is finalized by DEA and informed to ADB. Confirmation to participants is sent at least 10 days before the TPRM. ADB and DEA can invite other participants to the TPRM depending on necessity and mutual agreement. Participation on all days is compulsory to facilitate cross learning. All the participants sign the attendance sheet.

Financing

The cost of travel and stay of ADB participants is met from respective division travel budgets. Participants from government meet the cost of their travel from government funds. Cost of accommodation and airport transfers of government participants, food of all participants and other expenditure related to conference would be met from ADB TA funds. INRM PMU prepares a memo detailing the proposed expenditure for the TPRM and obtains the approval of Country Director. Immediately a request is sent to CTLA for release of advance to India Resident Mission imprest account.

Other Arrangements

A banner (12'x6') titled "Tripartite Portfolio Review Meeting of DEA, ADB and Executing Agencies" with Government of India and ADB logo is displayed as a backdrop at the TPRM. The TPRM proceedings are recorded in a suitable format (tape/MP3) for future reference. One photographer is available during the TPRM. India Resident Mission PMU staff accompanying PMU Head to the TPRM prepares a brief synopsis of the inauguration of the TPRM and sends it to HQ for publication in ADB Today. Similarly the External Relations Officer of India Resident Mission publishes article and photograph of TPRM in India Resident Mission Quarterly.

Pre-Meeting Inputs

Briefing Sheets

India Resident Mission PMU circulates draft briefing sheets to all the project officers under intimation to sector directors and PAU Heads at least 7 weeks before the TPRM. The project officers update the briefing sheets in consultation with executing agencies and return the updated briefing sheets within 3 weeks from the date of receipt. India Resident Mission PMU reviews the briefing sheets for overall consistency and accuracy and intimates the project officers about inconsistencies within 1 week from the date of receipt of the briefing sheets. Project officers return the final updated briefing sheets within one week from the date of receipt of email from India Resident Mission PMU. India Resident Mission PMU updates the financial data and circulates the final briefing sheets to all the participants 2 weeks before the TPRM. As far as possible, the briefing sheets should be limited to 4 pages.

Inputs from India Resident Mission PMU

India Resident Mission PMU prepares the opening presentation summarizing the India portfolio, progress made in achieving contract award and disbursement targets for the year, progress made from previous TPRM, list of projects for special discussion and important portfolio management issues which require special attention.

Pre-TPRM Meetings with DEA

India Resident Mission PMU discusses and agrees with DEA project wise issues which require attention during the TPRM discussions, the proposed schedule of the meeting, opening presentation, final list of participants and any other relevant issue. Such agreement facilitates focused discussions, and ensures that all key issues are flagged for consideration.

TPRM Proceedings

Discussions at the TPRM are conducted in an orderly and sequential manner involving opening remarks by DEA and ADB, sector wise discussion of projects which include a presentation on sector overview and discussion on individual projects, finalization of action plan in consultation with DEA, ADB and Executing Agencies and closing remarks by DEA and ADB. The opening and closing remarks at the TPRM are given by Joint Secretary, DEA, DG, SARD, Country Director, India Resident Mission and Director, DEA in the order mentioned. India Resident Mission PMU Head makes the opening and closing presentations. A designated staff from India Resident Mission PMU makes administrative announcements and acts as the Master of Ceremonies. The India Resident Mission PMU prepares an action plan at the end of the meeting listing important decisions taken at the TPRM and actions to be taken before the next TPRM.

Post Meeting Activities

Meeting Minutes

Audio recording of TPRM proceedings is uploaded on eSTAR for the benefit of ADB staff in HQ. Based on the TPRM proceedings, ADB Project Officers prepare draft minutes pertaining to their respective projects. The draft minutes include the time-bound action plan agreed at the TPRM and list out the important issues, actions to be taken, responsibility for each action and the target date. India Resident Mission PMU prepares the draft general minutes which include message given by DEA and ADB in the inaugural and valedictory sessions, general issues discussed during the meeting, overview of portfolio performance presented at the TPRM and the general action plan agreed at the TPRM. The draft project wise and the general minutes are sent to DEA for comments and concurrence. DEA is requested to provide its comments and concurrence to the minutes within 10 days. Final minutes are communicated to DEA and all the participants by ADB within one week after incorporating DEA's comments.

ANNEX 5: TRAINING CALENDAR FOR 2011

Date	Topic	Resource Persons/ Institutions	Venue	Status as on 31 July 2011
21 January 2011	Urban Forum	Project Directors and ADB Project Officers from Urban Sector and ADB's Central Operations Services Office	Bengaluru	Completed
31 January–23 February 2011	National Level Capacity Building Program on ADB Procedures on Procurement, Consultant Selection, Disbursement and Safeguards	ADB officials from India Resident Mission and Headquarters	Bengaluru	Completed
31 January–25 February 2011	Capacity Building Program on ADB Procedures on Procurement, Consultant Selection, Disbursement and Safeguards for Karnataka State Highways Improvement Project (KSHIP)	ADB officials from India Resident Mission and Headquarters	Bengaluru	Completed
27–29 April 2011	Workshop on Road Safety	ADB Project Officers from Transport Sector, Malaysian Institute of Road Safety (MIROS), Road Safety Department of Govt of Malaysia, Indian Academy of Highway Engineers (IAHE)	Training Centre at ADB India Resident Mission office, New Delhi	Completed
5–6 May 2011	Workshop on Safeguard Procedures for Consultants and Contractors	ADB officials from India Resident Mission and Headquarters	Training Centre at ADB India Resident Mission office, New Delhi	Completed
24–25 May 2011	ADB Orientation Forum	ADB officials from India Resident Mission and Headquarters	Guwahati	Completed


Contd.

Date	Topic	Resource Persons/ Institutions	Venue	Status as on 31 July 2011
19–21 May 2011	Workshop for Designing Training Courses	ADB officials, National Institute of Construction Management and Research (NICMAR), Administrative Staff College of India (ASCI), Indian Society for Trenchless Technologies (IndSTT), Indian Institute of Technology (IIT) Roorkee, Indian Academy of Highway Engineers (IAHE).	Training Centre at ADB India Resident Mission office, New Delhi	Completed
31 May–1 June 2011	Capacity Building Program on ADB Safeguard Procedures for Rural Roads Project	ADB officials from India Resident Mission	Bhopal	Completed
20–28 June 2011	Capacity Building Program on ADB Procedures on Procurement, Consultant Selection, Disbursement and Safeguards for North East Projects	ADB officials from India Resident Mission	Guwahati	Completed
18 July–1 August 2011	FIDIC Conditions of Contract and Contract Management Clinic	Trainers from International Federation of Consulting Engineers (FIDIC) and Consulting Engineers Association of India (CEAI)	Delhi, Bengaluru, Guwahati, Bhopal	Completed
1–5 August 2011	DPR Preparation for State Highway Projects	Indian Academy of Highway Engineers (IAHE)	New Delhi	Completed
9–10 August 2011	Workshop on Trenchless Technologies	Indian Society for Trenchless Technologies (IndSTT)	New Delhi	Completed
30 August 2011	Presentation on Accounting Reforms in Urban Projects	ADB officials from India Resident Mission and Executing Agencies from urban development projects	New Delhi	Scheduled
5–7 September 2011	Water Demand Management, Utilities Maintenance and Management for Urban Projects	The Energy and Resources Institute (TERI)	New Delhi	Scheduled

Contd.

Date	Topic	Resource Persons/ Institutions	Venue	Status as on 31 July 2011
19–30 September 2011	National Level Capacity Building Program on ADB Procedures on Procurement, Consultant Selection, Disbursement and Safeguards	ADB officials from India Resident Mission and Headquarters	New Delhi	Scheduled
14–18 November 2011	Construction Management for State Highway Projects	National Institute of Construction Management and Research (NICMAR)	Pune	Scheduled
21–25 November 2011	Construction Management for Rural Roads Projects	National Institute of Construction Management and Research (NICMAR)	Pune	Scheduled
28 November–2 December 2011	Construction Management for Urban Development Projects	National Institute of Construction Management and Research (NICMAR)	Pune	Scheduled
8 –10 December 2011	Project Management for New and Pipeline Projects	Administrative Staff College of India (ASCI)	New Delhi	Scheduled
19–24 December 2011	Water Requirement and Scheduling for Irrigation Projects	Indian Institute of Technology (IIT)	Roorkee	Scheduled

Source: Asian Development Bank India Resident Mission



Facilitating Infrastructure Development in India

ADB's experience and best practices in project implementation

Asian Development Bank (ADB) has been working in partnership with the Government of India, state governments, and executing agencies to facilitate infrastructure development towards meeting the nation's economic and human development goals. It has supported almost 160 projects across eight infrastructure sectors in over 20 states of the country. During the course of project implementation, ADB has encountered a number of challenges which have been addressed and resolved over time through consensus-based interventions and practices. This publication presents a compendium of such interventions and best practices conceived through joint portfolio reviews and consultations between ADB, GOI, and executing agencies. It is a valuable source of information and guidance for functionaries in infrastructure development and service provision.

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ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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